

| Railroad: | New York, Chicago \& St. Louis |
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| Date: | June 15, 1936 |
| Location: | Madison, Ill. |
| Kind of accident: | Collision |
| Trains involved: | Freight : Switch engine and |
| Train numbers: | No. 45 |
| Engine numbers: | 644 : 58 |
| Consist: | 65 cars : 39 cars |
| Speed: | 8-12 m.p.h. :Practically stopped |
| Track: | Tangent and practically level |
| Weather: | Clear and dark |
| Time: | 2:15 a.m. |
| Casualties: | 2 killed and 1 injured |
| Cause: | Failure of switching crew to afford flag protection while occupying main track; failure to operate freight train under proper control within yard limits. |

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July 22, 1936.
To the Commission:
On June 15, 1936, there was a collision between a freight train and a switch engine hauling a cut of cars on the New York, Chicago \& St. Louis Railroad at Madison, Ill., which resulted in the death of 2 employees and the injury of 1 employee. This accident was investigated in conjunction with a representative of the Illinois Conmerce Commission.

Location and method of operation
This accident occurred on Sub-division 4 of the Clover Leaf District, which extends between Charleston Yard and East St. Louis, Ill., a distance of 131.9 miles, and is a singletrack line over which trains are operated by time table and train orders, no block-signal system being in we. Madison, located 3.6 miles east of East St. Louis, is the wostern terminal for freight trains of this sub-division and the accident occurred within yard limits at a point 759 feet east of the east switch leading to the westbound yard at Madison. The Alton \& Southern Reilroad crosses the main line at a point about 1,455 feet east of the point of accident; this crossing is protected by an interlocking plant, the westbound home signal of which is located 2,014 feet east of the point of accident; this signal, however, was not involved in the accident. Approaching the point of accident from the east the track is tangent for practically 2 miles, this tangent extending for more than one-half mile beyond. The grade is practically level.

The tracks of the eastbound and westbound yards parallel the main track on the south, No. 1 traclr of the eastbound yard being adjacent to the main track. The east switch of the eastbound yard is located l,089 feet west of the east switch of the westbound yard.

It was clear and dark at the time of the accident, which occurred at 2:15 a.m.

## Description

Train No. 45, a second-class, westbound freight train, consisted of 64 cars and a caboose, hauled by engine 644, and was in charge of Conductor Mesnard and Engineman Galbreath. This train departed from Charleston Yard at ll:03 p.m., June 14, according to the train sheet, 7 nours 3 minutes late, passed Edwardsville, 14.4 miles east of Madison, at $1: 56$ a.m., 3 hours 31 minutes late, and on approaching the east end of Madison Yard collided with switch engine 58 while traveling at a speed estimated to have been between 8 and 12 miles per hour.
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Switch engine 58, in charge of Conductor Parker and Engineman Bachman, was headed west and hauling 39 cars eastward from track 1 of the eastbound yard out upon the main track and had nearly stopped when it collided with Train No. 45.

Switch engine 58 stopped on its lef't side to the south of the track, with its front end resting on the track and the rear of the boiler extending southward at an angle of about $35^{\circ}$ and was badly damaged; the tender was demolished. The front truck of the first car was derailed but none of the other cars in this cut was derailed or damaged. Engine 644 and the front pair of wheels of the tender were derailed to the south, the left wheels standing on an overturned rail and the right wheels inside of and close to the north rail. The front end of the engine was slightly damaged, but none of the cars in Train No. 45 was derailed or damag'ed. The employees killed were the engineman and fireman of the switch engine and the employee injured was the fireman of the freight train.

Summary of evidence
Engineman Galbreath, of Train No. 45, stated that when passing the yard limit board at Madison he was operating his train at a speed of about 40 or 45 miles per hour and at this time he noticed the headlight of the switch engine which appeared to be in the vicinity of the east switch of the westbound yard, where his train was to head in. He made an 8 -pound brake-pipe reduction at a point about 25 car lengths east of the interlocking home signal, and after passing the signal he made a further reduction of 7 pounds, reducing the speed to about 22 or 23 miles per hour at the $A . \& S$. crossing. The switch engine was about 3 or 4 car lengths distant when he realized that it was moving toward him and the speed of his own train was then about 15 miles per hour. He immediately applied the air brakes in emergency, reducing the speed to 8 or 10 miles per hour at the time of the collision. Engineman Galbreath stated that the air brakes had been tested before leaving Charleston and they functioned properly en route. He was of the opinion that he was complying with Rule 93, which provic. 2 s that second-class and extra trains must move within yard limits prepared to stop unless the main track is seen or known to be clear, and he said the accident would have been avoided if the switch engine had not been moving toward him.

Fireman Lynch, of Train No. 45, stated that he saw the headlight of the switch engine as his train entered the targent track about $1 \frac{3}{4}$ miles east of the $A . \& S$. crossing; he kept a lookout ohead until after speed was reduced, but after passing over the crossing he looked out only twice, and the last time
the switch engine appeared to be near the switch his train was to enter. His first warning of danger was when the engineman applied the brakes in emergency, opened the sanders and sounded one blast on the whistle. He looked out on the right side of the gangway and saw the switch engine about 4 or 5 car lengths distant, the speed of his train then was 10 or 12 miles per hour. He also heard the whistle sounded on the switch engine. The statements of Head Brakeman Rennels corroborated those of the engineman and fireman as to the speed of thsir train approaching Madison.

The statements of Conductor Mesnard and Flagman Tourene added nothing of importance, except that aiter the accident Conductor Mesnard observed that the brake valve on engine 58 was in running position and the reverse lever in reverse position.

Yard Conductor Parker, of switch engine 58, stated that when he vent to work at midnight the night yardmaster informed him that Train No. 45 had left Charloston at ll p.m., but no did not check the register for overdue trains, and it has never been the practice to do so. He did not say anything to his Engineman regarding Train No. 45 leaving Charleston at ll p.m., as the engineman had made a practice of checking the train register himself and getting the time of trains from the operator. Yard Conductor Parker was instructed by the yardmaster to double some cars against a cut of 36 cars on track 1 , this being the usual practice. After the cars were coupled, the cut of 39 cars was pulled eastward out of track $l$ onto the main track; at that time Train No. 45 was not in sight. After the cars had cleared the switch of track 1 he walked over to close it and at this time he saw Train No. 45 approaching, the train then appearing to be near the road crossing located about l mile east of the interlocking tower. He heard two short blasts of the whistle and also heard what sounded like a slipping driving wheel, which he thought was his engine trying to move ahead. Within a few minutes he heard escaping steam and then realized that something had happened. The west end of the cut stopped 8 or 10 feet east of the eastbound yard switch and he thought the cars had just stopped when the collision occurred. Yard Conductor Parker stated it has been the practice to pull cuts of this length out of track 1 and to use the main track for a switching lead, looking out for Train No. 45. If Train No. 45 was in sight, however, they would not pull out and block the main track. While the rules provide that yard engines will protect against second class and extra trains, it has been the customary practice of all the yard men not to do so, for at least 16 years in the past. There is an $S$ curve in the east-
bound lead and Conductor Parker said if one man were used to flag it would cause delay in making up the trains and the yardmaster would not tolerate such delays. While it was possible to have made a cut which would have avoided the necessity of moving beyond the east switch of the westbound yard, he had been instructed to save time by keeping the cars together as much as possible. He stated that he has oeen criticized by the yardmaster in the past on account of time used in making up this train. In foggy weather, however, short cuts only are handled and fusees are used on the rear of the engine, and the engine does not proceed beyond the switch leading to the westbound yard. All westbound and second-class and extra trains enter the east switch to the westbound yard unless otherwise instructed by the yardnaster, and in the latter event yard crews are informed of the arrangements.

Yard Helper McGarrahan, of switch engine 58, stated that when the move was made out upon the main track he was starding on the north side of the cars about 10 or 15 car lengths west of the east yard main-line switch and was unable to see the headilght of the approaching train. He stated that it is not the usual procedure to handle a cut of 39 cars on the main track; the main track between the switches leading to the two yards will hold about 22 cars, and this was the first time they had handled such a large cut since May 27 th, the date he was assigned to the job, but aside from the number of cars involved, the movement was being made in the customary manner. He stated that it was the duty of the yard foreman to find out personally from the operator the time of arrival of Train No. 45 before proceeding east of the switch leading to the westbound yard. The yardmaster had informed them that Train No. 45 had left Charleston at 11 p.m.

Yard Helper Davis, of switch engine 58, stated that when the cut was pulled off track 1 he was on about the tenth car from the west end and dropped off at the main track switch, giving $\varepsilon$ stop signal when the last car was ajout 4 car lengths west of the switch. The cut was moving about 5 or 6 miles per hour and the lest car moved 2 or 3 car lenreha eas'u of the switch before it started to drift westward. le foougint that the cut had practically stopped when inc accident occurred. He had no information relative to Trein lo. 45 and did not look castward to see if a tirain was approaching. Ife alro stated. that it is not the custom to pull cuts of this sizc out upon the main track if trains are overdue, the usual lergth of the cut being 20 or 30 cars, nor is it the custom to comply with Rule $93(a)$ while switching in Madison Yard.

Night Yardmaster Lott stated that he gives the foreman an oral line-up as to when trains are due and the foreman should give this information to the engineman and other members of his crew. On the night of the accident he informed the switch foreman that Train No. 45 left Charleston at ll:05 p.m., and would arrive at Madison about 2:20 a.m. He did not think it necessary that the foreman check the register and did not know whether enginemen of yard engines were required to do so, neither did he know whether Engineman Bachman had checked the register on the night of the accident. It is customary for yard foremen to obtain later information regarding trains, by calling on the telephone from the east end, although Yard Conductor Parker did not call that night, and he expected that the conductor would provide flag protection. Protection was afforded for switch engine 58 against eastward trains through a crew the yardmaster had working in East st. Louis. He had never criticized any yard conductor for failure to comply with rule 93 and neither did he know of any instance where any official of the railroad had criticized an employee for failure to furnish flag protection in yard limit on a train other than a first-class train. He did not know of any instance where a switch engine used the main line without flag protection.

Operator-Leverman Whisenand, on duty at A.\& S. Tower at the time of the accident, stated that when Train No. 45 whistled for the station he looked toward the yard to see if there were any trains on the main line, but he saw none. As Train No. 45 was approaching the plant he again glanced toward the yard and could see a headlight, but there was nothing to indicate that the encine was on the main track. He cleared the signals for Train No. 45 to proceed through the plant, and the train passed the tower at a speed of between 10 and 15 miles per hour and when approximately 20 cars had passed him, he heard the brakes applied in emergency. He stated that if there had been a headlight apparent on the main track west of the tover ha would not have lined the plant, al though he has no instructions to protect any movements other than between the home signals of the plant.

Trainmaster Skiver made the statement that westbound freight trains have no schedule that permits them to proceed westward beyond the switch leading to the westbound yard at Madison, and that protection west of that switch would not be as essential as it is east of that point. In the case of a westbound passenger extra that might be operated through the yard to East St. Louis, the train would have an order authorizing it to run extra Charleston Yard to $M$. B. connection, Madison, with right over designated trains and yard engines, each yard
engine being furnished with a copy of this order. When no such order is received, yard engines protect against regular trains only. Yard engines are not required to report for train orders but yardmasters get a copy of the order and see that they are delivered to yard crews when necessary.

Discussion
Rule $93(a)$ provides that within yard limits, the time of first class trains must be cleared as prescribed by the rules. The main track may be used protecting against second class and extra trains. Second class and extra trains must move within yard limits prepared to stop unless the main track is seen or known to be clear.

The evidence indicates that the yard conductor and one of the yard helpers had been informed of the departing time of Train No. 45 at Cherleston, but Yard Conductor Parker stated that he did not give this information to the engineman, as he assumed the engineman haditheregister. Inasmuch as both the engineman and fireman were killed as a result of the accident it cannot be determined whether they were aware of the time of this train, or why they continued beyond the east switch of the westbound yard against the approaching train.

It apoears that it has been the practice for years for yard crews to use the main track between the entrance switches to the eastbound and the westbound yards in switching operam tions at Madison without furnishing flag protection against second-class trains as required by Rule $93(a)$, the general practice, however, being to keep clear of the westbound yardswitch, as unless otherwise instructed, westbound second-class and extra trains enter this switch and these trains are operated under the assumption that the main track will not be used east of the switch unless flag protection is afforded. Yard Conductor Parker, however, stated that it was the practice to handle a cut of this size on the majn track, which would necessitate going beyond the westbound-yard switch, although they would not block the main track when a train was seen to be approaching. He gave as his reeson for pulling such a long out out upon the main track that it saved delay and he had been oriticized for using too much time in making up trains, although he had never been criticized for violation of Rule g3(a).

Engineman Galbreath entered yard limits at normal operating speed even though he saw the headlight of the switch engine on the main track. He expected to stop east of the
westbound-yard switch and assumed the yard engine was west of that switch.

The lack of uniform understanding and compliance with Rule 93(a) disclosed by this investigation indicates that supervisory officials have failed to require strict observance of this rule.

Conclusion
This accident was caused by failure of the switching crew to afford flag protection against a second class train while occupyjng the main track, and Train No. 45 not being operated under proper control within yard limits, as required by Rule 93(a).

## Recommendation

It is recomended that the operating officials of this railroad take necessary steps to secure proper enforcement and observance of the rules.

Respectfully submitted,
W. J. PATTERSON,

Director.

