

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
CHICAGO, BURLINGTON & QUINCY RAILROAD AT SUGAR
GROVE, ILL., ON NOVEMBER 9, 1918.

December 30, 1918.

On November 9, 1918, there was a head-on collision between two passenger trains on the Chicago, Burlington & Quincy Railroad at Sugar Grove, Ill., which resulted in the death of two passengers and the injury of sixteen passengers and one employee. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

The Aurora-Savannah Subdivision of the Chicago, Burlington & Quincy Railroad extends between Aurora, Ill., and Savannah, Ill., a distance of 107.7 miles. At the point of accident the line is single-tracked and trains are operated on this division by time-table, train orders and a controlled manual block signal system.

The trains involved in this accident were west bound passenger train No. 53, en route from Chicago, Ill., to Savannah, Ill., and east bound extra passenger train No. 2835, en route from Camp Grant, Ill., to Chicago, Ill.

Train No. 53 consisted of engine 2942, 1 baggage car, 1 express car, 2 baggage cars, 1 mail car, 3 passenger coaches and 1 baggage car, in the order named, in charge of Conductor Wallace and Engineman Edgerton. All the coaches in this train were of wooden construction excepting the mail car and one baggage car, which had steel underframes. At Aurora the crew of train No. 53 received three "Form 31" train orders, reading as follows:

(Order No. 29) No. 53 meet extra 2835 east at Sugar Grove. No. 53 take eastward siding at Sugar Grove.

(Order No. 31) No. 53 meet extra 2853 east at Big Rock. No. 53 take siding at Big Rock.

(Order No. 34) On receipt of orders 29 and 31, No. 53 may go.

After receiving these orders, train No. 53 left Aurora at 8.28 a.m., 13 minutes late and proceeded to Sugar Grove, failed to take the eastward siding at that point, as directed by order No. 29, and, at about 8.41 a.m., collided with extra 2835 at Sugar Grove depot while traveling at a speed shown by the speed recorder as 20 miles per hour.

Extra 2835, a troop train, consisted of engine 2835 and twelve coaches, all of wooden construction except three having steel underframes, and was in charge of Conductor Lutyens and Engineman Burke. This train left Camp Grant at 6.30 a.m., and at Shabbona, Ill., received a copy of Order No. 29, departing from Shabbona at 8.16 a.m. It passed Big Rock, the first station west of Sugar Grove, at 8.36 a.m., and at 8.41 a.m., collided with train No. 53 at Sugar Grove, while travelling at a speed shown by the speed recorder as 40 miles per hour.

The two engines came to rest in an interlocked position, both having the frames forward of the cylinders broken off and the pilots destroyed. No part of either train was derailed except the tender of engine 2835, the rear end of which was elevated and the entire tender forced upward and into the forward coach of the troop train; this coach had its platform and front end crushed in and the roof destroyed for a distance of 10 or 15 feet; the third coach was slightly damaged. Baggage

car 1318, the first car on train 53, had its end crushed.

Beginning at a point about one mile east of Sugar Grove and proceeding westwardly, the direction in which train No. 53 was running, there is a tangent leading onto a 1-degree curve to the right, 1306 feet long, followed by a tangent 2288 feet long, which leads to a 59-minute curve to the left about 850 feet long. Approaching Sugar Grove from the west, the track is tangent for 6874 feet to the west end of the curve in front of the station, at the east end of which the accident occurred.

Beginning at mile post 44, east of Sugar Grove, and proceeding westwardly, the grade is descending at the rate of .03% for 400 feet, then at the rate of .22% for 600 feet, when it ascends at a rate varying from .27% to 1.00% for a distance of 3,100 feet to the summit, a few feet west of Sugar Grove station. Approaching Sugar Grove from the west from a point about one mile distant, the grade is ascending at a rate varying from .03% to .91% to the summit, near the station.

Conductor Wallace, of train No. 53, stated that he personally signed for the three orders issued to his train at Aurora. He received two copies of Order No. 29, one copy of which he later delivered to the engineman and one he retained. He checked the orders with those specified in the "May Go" order and with the clearance card. He did not read the orders to the engineman or the head brakeman, but handed them to the engineman, who, at the time, was standing in the gangway of the engine, while the fireman was engaged in filling the water tank. The engineman did not read the orders aloud to him, nor did he

request him to do so. They had no conversation concerning them, although he is familiar with the rule requiring enginemen to read Form 31 train orders to their conductors, also the rule requiring that conductors show orders to brakemen and flagmen. He stated that the general practice is for the engineman to read the orders back to him and for him to show the orders to the brakeman, but that the reason he did not follow the requirements in this instance was that the dispatcher had requested him to depart as soon as possible, and he so advised the engineman, while he himself hurried back to the station to ascertain if the station work was done and assist in setting off a car. He could not say that the flagman had received a copy of the order, nor did he ask the brakeman to read the orders, but while at the depot before their departure he told the brakeman that they were to meet an extra train at Sugar Grove and instructed him to head in on the eastward passing track, and in order to save delay in taking the siding, the brakeman had better ride the engine to Sugar Grove. He assumed that the orders were understood and that they would take the siding at Sugar Grove, in conformity with the order.

He further stated that after leaving Aurora he paid no attention to the whereabouts of his train, as he was busy collecting tickets in the last coach and he did not know when the east switch at Sugar Grove was passed. He had not seen the flagman after they left Aurora, but on working through to the rear car, found him there. Up to that time he had heard neither the meeting point whistle nor the station whistle.

His attention was called by a whistle from his engine, which aroused his suspicion that something was wrong, as it was not the station signal, but sounded like the engineman whistling for brakes, and on looking out of the window, he saw they were past the eastward switch and running parallel to the siding and remarked to his flagman that they had gone by the switch. They were slowing down when he heard the whistle and the collision occurred almost immediately afterward. The conductor stated that he did not forget the meeting point, but forgot where his train was, as they arrived at Sugar Grove sooner than he expected and he was depending on his crew to carry out the requirements of the orders.

Engineman Edgerton, of train No. 53, stated that the three orders and clearance card were handed to him at Aurora by the conductor; at the time he was preparing to make a switching movement he set off a car from the rear of his train and he did not read them back to the conductor, but in turn handed them to his fireman, requesting him to see what the orders were. Engineman Edgerton stated he was familiar with the rule requiring that the engineman read back the orders to the conductor, and ascribed his failure to do so in this instance to the fact that they were in a hurry to depart from Aurora, the conductor having told him to "hurry over to Sugar Grove." The fireman returned the orders with the comment that they were to take siding at Sugar Grove and Big Rock for two troop trains, extra 2835 and extra 2853. Leaving Aurora, the head brakeman was on the engine and was with the fireman when he handed the orders

to the fireman, but the engineman could not say whether or not the brakeman had read the orders, although he inquired of the brakeman his reason for being on the engine and was informed by him that he was to throw the switch. He had no conversation with his fireman after leaving Aurora. He heard the fireman and brakeman talking together, but did not understand what they said. When in sight of Tower 38, .84 miles from Aurora, and which they passed at 8.32 a.m., he read the orders, but read Order No. 29 as instructing them to "take westward siding" instead of "eastward siding," and assumed that, after doing the station work, he was to head in on the westward siding. The engineman admitted that in the stress of their hurried departure he did not read the orders as carefully as he should and that it was possible that he entirely overlooked the word "eastward" in the order. He noted that Order No. 29 was different than the order he expected in that it designated which siding they were to take, and, under the interpretation he gave it, would have been an improperly worded order, but he did not stop to question the matter and said that they were too far out in the country to correct it. After passing the E.J. & E. crossing, 1.45 miles from Aurora, he read the order a second time, again reading it as specifying "westward siding." Approaching Sugar Grove, when about at the mile board, he stated that he sounded the meeting point whistle, and when about at the east switch at Sugar Grove he sounded the station whistle. He was preparing to make the station stop at Sugar Grove and had applied the brakes when he saw the smoke from extra 2335.

After they had passed the east passing track switch, which is about half a mile from the depot, he heard the fireman say to the brakeman that extra 2835 was coming, which attracted his immediate attention. He leaned further out of the cab and saw that the opposing train had passed the westward passing track switch; he then applied the brakes in emergency, but it was not immediately effective because of his having just previously made a service application; after that he jumped. He stated he saw no hand signals given.

Fireman Rogers, of train No. 53, stated that, just as they were leaving Aurora Engineman Edgerton showed him the three orders and he read them and understood them. He handed them back to the engineman, but did not discuss them with him until approaching Sugar Grove and when about a train length east of the passing track switch, he saw they were not going to head in there. Then he asked the engineman if they were not to head in there and was told they were to go in on the west siding and so concluded that he might have made a mistake in reading the orders. The fireman stated that it was not until after they had passed the switch that the flagman spoke to him about the conductor's instructions. Before reaching the switch, the engineman sounded the station whistle, but he did not hear him sound the meeting point whistle. He estimated they passed over the switch at a speed of about 30 miles per hour; ordinarily the engineman shuts off at this switch preparatory to making the station stop, and, in the fireman's opinion, had he followed his usual practice he could have brought his train to a stop very shortly after extra 2835 was called to his attention. Af-

ter passing the switch, the brakeman spoke to him, he stepped to the gangway, looked ahead, saw the smoke of extra 2835 when it was about two train lengths distant. At that time the engineman had made a service application of the air and when the fireman called to him he made an emergency application before the collision, the fireman jumping off before the collision occurred. He did not think it possible that an engineman approaching the east switch could have observed a hand signal given at the depot.

Head Brakeman Stevens, of train No. 53, stated that at Aurora, when the conductor came from the telegraph office with the orders, he was waiting for a signal from the flagman; the conductor passed within half a car-length of him and asked him about the car to be set off, but did not show him the orders and said nothing about them and the brakeman did not ask about them. After delivering the orders to the engineman, the conductor passed within about a car length of him on the way back to the rear of the train and said: "We are to take the eastward siding at Sugar Grove." The brakeman replied: "All right, I will ride the engine over," and he then got on the engine, riding on the fireman's side. The brakeman stated he understood they were to take the eastward siding at Sugar Grove, but did not know what train they were to meet. He did not tell the engineman his reason for being on the engine, nor did the engineman ask him, but his recollection was that he told the fireman. After leaving Aurora, he heard no conversation between the engineman and fireman relative to the handling of the train. As they passed Tower 38 he saw the engine-

man reading the orders, but the engineman did not offer to show them to him, nor did he request to see them, and, from having seen the engineman read the orders, the brakeman assumed he understood them. Approaching Sugar Grove, he did not remember the engineman's sounding a meeting point whistle, but when about at the siding switch, he sounded the station whistle and reduced speed. He stated he was riding on the fireman's seatbox, and, when 2 or 3 car lengths from the switch, seeing they were not going to stop, he spoke to the fireman, who was working near the engineman's side of the firebox door, saying: "Mr. Wallace told me we were going to take the eastward siding at Sugar Grove and that is why I am riding the engine to head you in there." As they passed the switch, the fireman stepped to the gangway, looked ahead, then called to the engineman that the extra was coming down the main track. At that time they were about 12 to 15 car lengths from the depot. When he saw that a collision was imminent, he jumped off on the right side, leaving the engineman and fireman on the engine; the engineman was then making an attempt to stop the train.

Flagman Keek, of train No. 53, stated that leaving Aurora he had a copy of the orders, had read them and understood that his train was to head in on the eastward switch. He was on the rear end, next to the last car. He did not recall hearing either the station whistle or the meeting point whistle. On approaching Sugar Grove he got out on the rear platform ready to get off and protect the switch after their train had gone in on the siding. They approached the switch at practically full speed. Notwithstanding his understanding of the

orders, he stated he made no effort to stop the train when he found it was not going to take the siding.

Engineman Burke, of extra 2835, stated that at Shabbona they received order No. 29, previously quoted. Approaching Sugar Grove, he sounded the meeting point whistle signal and when they arrived at the west switch he saw the smoke of No. 53. The train order signal was in stop position and he intended to stop in compliance with it. Before reaching the road crossing west of the depot he made two reductions of the air and when about 20 car lengths from the depot thought he saw the agent on the station platform preparing to deliver him a clearance card by means of a hoop, and assumed that No. 53 had cleared the main track. The fireman got down on the step to receive the order, but after he reached the road crossing, which is 700 feet from the station, he saw train No. 53 was on the main track and made every effort to stop. Previous to the reduction his speed was 40 miles per hour or over, but he thought he had reduced speed to about 10 miles per hour at the time of collision. He said that, due to an obstructing knoll near the track approaching Sugar Grove, he could not have ascertained before reaching the road crossing that No. 53 was on the main track, and that had he not seen the agent on the platform, he would have made preparations to stop sooner than he did.

Conductor Lutyens, of extra 2835, stated that they received Order No. 29 at Shabbona and it was his understanding they would meet No. 53 on the eastward passing track at Sugar Grove. Approaching Sugar Grove he was riding on the steps of

the fifth car from the engine on the depot side and observed that the train order signal indicated stop. He saw someone on the depot platform, but saw no stop signals given. He said that, had his train passed the depot without receiving any orders, he would have stopped the train and could have done so before they reached the east switch.

Fireman Stevens, of extra 2835, stated that he had read Order No. 29 and they expected train No. 53 to head in on the eastward passing track. Approaching Sugar Grove his engineman sounded the station whistle and later the meeting point whistle, and reduced speed to about 30 miles per hour by two applications of the air. When within about a train length and a half of the depot, thinking he saw the operator on the platform giving him a signal with an order hoop, he assumed that train No. 53 was into clear and the operator had a clearance card ready for them and when about 4 car lengths from the depot he got down on the step to receive the order. He did not see train No. 53 until they were within 3 or 4 car lengths from it. He estimated their speed at the time of collision at from 25 to 30 miles per hour. The engineman had applied the air and was still on the engine, sounding the whistle.

Agent-Operator Roberts stated that he had copies of the orders and understood the moves which were to be made. The station train order signals governing main track movements in both directions were in stop position. He was on the platform and had the mail sack containing mail for train No. 53 and saw that train about midway between the east switch and the depot.

On looking west, he saw Extra 2835 probably half a mile away. When Extra 2835 passed the west switch he saw that they were not going to slow up and when he saw that a collision was imminent, he attempted to flag the approaching trains with the mail sack. It appeared to him that the engineman of Extra 2835 applied the emergency brakes very shortly after passing the west switch. At no time did the operator have a hoop to deliver a clearance, nor did he have any orders in his hand.

This accident was caused by the failure of train No. 53 to take siding at the eastward passing track, as directed by Order 29, for which Engineman Edgerton and Conductor Wallace are responsible. The head brakeman, fireman and flagman failed to perform their duty in carrying out the instructions of Order No. 29, as each was familiar with its requirements.

Engineman Burke, of Extra 2835, approached Sugar Grove station at too high a rate of speed for safety, and to that extent he was at fault.

The investigation of this accident disclosed that in the operation of Train No. 53, safety was sacrificed for dispatch. The conductor was instructed by the dispatcher to make a hurried departure from Aurora, and as a consequence he permitted a violation of that part of Rule 907, which reads:

The conductor of a passenger train must deliver Form 31 train orders to the engineman, and the engineman must read them to the conductor.

Had the conductor complied with this rule and insisted on the engineman's reading back the orders to him, it doubtless would

have been impressed on the engineman's mind that he was to take the eastward switch and not the westward one, as he stated he understood the orders; even had the engineman carefully read the orders, he would have understood he was to take the eastward siding, and the accident would not have occurred. Rule 210 reads in part as follows:

*****Enginemen must show train orders to firemen and when practicable to forward trainmen. Conductors must show train orders when practicable to trainmen.

The conductor should have known that every member of his crew was familiar with the orders and that none was depending on the other to see that they were properly executed. While the head brakeman had not read the orders, he had been instructed by the conductor to head the train on the eastward siding and he should have seen to it that the engineman understood the order and would comply with it. The fireman had read the orders and upon learning of the engineman's erroneous impression that they were to take the westward siding, should have corrected it, or at least have consulted the orders again. He did not carry out the intention of Rule 978, Special Rules for Firemen, which specifies that firemen shall

keep in mind all orders and notices regarding the movement of trains, so as to be prepared to correct any oversight or mistake if there should be any occasion for so doing.

Rule 221 reads:

" 221. A fixed signal must be used at each train order office, which shall indicate "stop" when there is an operator on duty, except when changed to "proceed" to allow a train to pass after getting train orders, or for which there are no orders. A train must not pass the signal while "stop" is indicated. *****"

A strict observance of this rule would necessitate that Engineman Burke, of Extra 2835 so control the speed of his train approaching Sugar Grove that in the event of the signal being in the stop position, he could stop before passing it and had he observed this rule, the accident might not have occurred. Engineman Burke admitted he saw the train order signal in the stop position, but disregarded it when he thought he saw the operator on the platform ready to deliver him a clearance card.

There were two men on the engine of train 53 who were familiar with the orders and the fact that both of them allowed the train to overrun the meeting point which was established by an order received less than fifteen minutes previously evidences the fact that both were negligent in the proper performance of their duty. The only plausible explanation is that all the others depended upon Engineman Edgerton and he had misread the order. Engineman Edgerton had been an engineman on this division for thirty years and his record was good. The other members of the crews of these trains were experienced men with good records and none were on duty in violation of the hours of service act.

RSL