

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
MICHIGAN CENTRAL RAILROAD NEAR DEXTER, MICH., ON
NOVEMBER 23, 1918.

January 8, 1919.

On November 23, 1918, there was a head-end collision on the Michigan Central Railroad near Dexter, Mich., between an eastbound express train and a westbound freight train which resulted in the death of three employees and injury of two employees. After investigation the Chief of the Bureau of Safety reports as follows:

That part of the Detroit Division of the Michigan Central Railroad on which the accident occurred extends between Detroit and Jackson, Mich., a distance of 74 miles, and is a double-track line over which trains running with the current of traffic are operated by an automatic block system. Train orders transmitted by telephone are used to provide for movements against the current of traffic. The south track is used for eastbound movements and the north track for westbound.

The trains involved in this accident were freight extra 7934 west and passenger extra 8488 east. Extra 7934 consisting of engine 7934, 65 loaded and 19 empty cars and a caboose in charge of Conductor Moody and Engineman Rogers, left Detroit at 11.35 p.m., November 21st. It passed Dexter at 3.56 a.m., November 23rd, and was stopped about 3/4 mile west of that station by the brakes applied from the caboose. At about 4 a.m. it was struck by extra 8488.

Extra 8488, consisting of engine 8488, 10 express and 4 freight cars loaded with express and 1 passenger coach, in charge of Conductor Lealie and Engineer Rinsard, left East Yard, 2.45 miles east of Jackson, Mich., at 3.15 a.m. It arrived at Chelsea, Mich., at 3.45 a.m., where it received train order No. 101 reading as follows:

Passenger extra eight four eight eight 8488
was right over opposing train on Westward track
Chelsea to Dexter.

After receiving this order extra 8488 crossed over to the westward track and left Chelsea at 3.55, was about 1/2 mile, while running at a speed of approximately 15 miles an hour, it collided with extra 7534.

The engineer, fireman and no one else were killed. Both engines 8488 and 7534 were killed. Both engines remained upright on the road-bed parallel with the track but partly derailed. The frames of both engines were broken, their steam chests and cylinders knocked off and front ends crushed in and the engine trucks demolished. Engine 8488 rested with its rear drivers on the rails and its front drivers about 3 feet above the rails. Its tender remained upright on the track with the front end shoved into the cab of the engine and a box car lying cross-ways on its side on top of the rear end of the tender. Three box cars and three express cars were turned over on their sides to the south and partly over the eastward track where they caught fire and with their contents were burned. One express car left the track to the north, crossed the passing track and came to rest tipped at an angle of 45 degrees about

parallel with and just clearing the passing track and with the rear end approximately opposite the front end of engine 8488. The tender of engine 7934 was turned over on its right side onto and about acrosswise the passing track at the rear of engine 7934. The first car of extra 7934 was completely demolished. The second car of that train remained on the track with the front end up close to the rear end of engine 7934. All of the other cars of both trains remained on the rails.

Approaching the scene of accident from the east there is a 3-degree curve to the right 1735 feet long followed by a tangent 115 feet long. Next there is a 2-degree curve to the left about 1775 feet long, then a 480-foot tangent to a 2-degree curve to the left about 763 feet in length. Dexter station is located about 235 feet west of the east end of this curve on the south side of the tracks. Following the last mentioned curve there is a tangent 770 feet in length followed by a 2-degree 14-minute curve to the right 1760 feet in length. It was about 675 feet from the east end of this latter curve that the accident occurred.

Approaching the scene of accident from the west there is a tangent approximately 3600 feet long followed by a 1-degree curve to the left 970 feet long. Then there is a tangent about 1560 feet long followed by a 2-degree 14-minute curve upon which the accident occurred. The grade at the point of the collision is slightly descending for eastbound trains. The weather was clear.

Train order boards are located opposite Dexter station on a high mast about 40 feet north of the westward track. There is also a one arm automatic block signal located on a mast about 10 feet north of the westward track and about 100 feet west of the train order block. The mast of this signal is about 15 feet shorter than the mast of the train order signal. Beginning about 2600 feet west of Dexter station there is a passing track north of the westward main track. This passing track extends to a point about 3450 feet west of the point of accident.

About sixteen minutes before the arrival of extra 7934 at Dexter, or about 3.40 a.m., train order No. 101 issued to operator, conductors and engineers of westward extras at Dexter was made complete.

Dispatcher Miller stated that a double header in front of extra 8498 had trouble and he ordered a reverse movement for extra 8498. He put out a 19 order at Chelsea to conductor and engineer of passenger extra 8498 and a 31 order at Dexter to operator and conductors and engineers of westbound extras; he had been unable to get extra 7934 at Ann Arbor, the first station east of Dexter, and he asked the operator at Dexter to go east of the crossover switches and stop this train so that it would not come down to the order board and have to back up to clear the crossover for extra 8498. At 3.53 a.m. the operator called him and said that the westbound had run his order board, but that he had gotten the signal to the rear end of the train and a brakeman had gone inside to apply the air.

Operator Hart at Dexter stated that he had orders to hold westbound trains for a reverse movement of train 8488. He told the dispatcher he would go down and stop 7934 from blocking the crossover and have the crossover lined up for extra 8488. As he left the station he called to the crossing flagman at the first crossing east of the station telling him that he was going down to stop 7934 and he asked the flagman to watch out for extra 8488. He stated that the crossover is located about four car lengths east of the station and train order signal, and said that he was on the north side of the track on the engineer's side with a white lantern. He waited from three to five minutes before the train arrived; and when the engine passed him the cab windows were closed and he saw no one in the window on the engineer's side. He stated that he began giving the stop signal as soon as he saw the headlight of 7934, but got no answer to his signal. While giving the stop signals he glanced at the train order board and it was showing a red light; after he was unable to attract the attention of the engine crew he ran towards the crossing flagman's shanty, called to him to try and stop the train and pointed to the board calling his attention to its position. He further stated that as the rear end of the train passed him there was a brakeman on the lower step on the south side preparing to get a message or train order, and he gave the brakeman the stop signal and called out to him to stop the train; he said the brakeman saw his signal and went into the way car to turn on the air, but that the train

ran out of sight before it stopped. He also stated that it was a usual thing when a reverse movement was being made to go down to the switches and stop a train because it was hard for it to back up if it got to the crossover before stopping. He said there was no one else around his office that night.

Crossing Flagman Bok stated that he was on duty at the first crossing east of Dexter station on the date in question and noticed the operator come from the station and go down to the crossover switches; on his way down the operator told him to look out for extra 8495 on the westbound track and said that he (the operator) was going down to stop the extra coming west. He said that he was on the crossing all the time the operator was at the crossover and he did not hear the freight train whistle; after the engine passed, the operator continued to give signals and called to him to stop the train, and he then swung his lantern too, but did not succeed in attracting any attention. The operator called his attention to the train order board and the light was burning brightly and showed red.

Crossing Flagman Smith at the second street crossing east of the station stated that extra 7934 whistled in answer to his crossing signal, and he is positive the telegraph signal showed red.

Head Brakeman Lennon on extra 7934 stated that his train left Detroit with 74 cars and made several stops prior to the accident. As the train came around the curve into Dexter, he was riding on the fireman's seat, and the

signals were all set in the clear position; he did not see anyone with a white light on the track at the crossover switch, nor did he see anyone giving signals, but saw a yellow light at the crossing. The fireman was putting in a fire as the train came through Dexter, and he (the brakeman) called clear board; the engine-man repeated the signal indication and sounded the whistle for the station, and he was absolutely positive the train order board showed green, and that signal 471 just west of Dexter was also in the clear position. He further stated that the train was stopped just west of Dexter by the brakes applied from the caboose; as soon as the train stopped he got off and started back for signal, and the train had not been standing more than three or four minutes, and he had gotten back about ten car lengths, when extra 3487 ran into it. He stated that the rules require a flagman on a train stopped under such circumstances to flag the opposite main track unless it is known to be clear; he did not know the opposite main track was clear, but felt quite sure that it was. He said that according to the rules it was his duty to go forward the instant his train stopped and flag the eastbound track. He stated that the car window was open and he had his head out going around the curve into Dexter, and the train was moving about 30 miles an hour at that time. He saw the crossing flagman at the crossing nearest the station, and he had a yellow lantern, but was standing still and giving no signal; he saw no other light. He stated positively that he was wide awake between Ann Arbor and Dexter.

Conductor Moody on extra 7934 stated that his train left Detroit at 11.25 p.m., and going into Dexter he got up in the cupola to see if he could see the telegraph signal and found it red, he kept watching on the south side as he was expecting to get a message, and the rear brakeman was on the back platform watching for a message or order and saw the operator near the crossover giving the stop signal and immediately opened the air valve and the train stopped about 60 car lengths west of the telegraph signal. He said the crossing flag was swinging a yellow light. He further stated that he observed the train order signal red and told the rear brakeman so; he could not say whether it moved red before the engine got to it because it could not be seen from the cupoose until after the engine had passed it, but he saw the signal when about 30 or 35 car lengths east of Dexter station. He also stated that it was quite usual to find a signal red and then catch a message or an order and keep going. He said that as soon as the train stopped the brakeman went back to flag. On the way back he stopped into the telephone booth and called up the dispatcher, and found that extra 9488 was coming over the westbound track. He then lit a fuse to back up extra 7934. Just about that time extra 9488 was heard whistling for a crossing. A very short time later the collision occurred.

Rear Brakeman Eales on extra 7934 stated that as his train came into Dexter he was on the rear platform and saw the train order signal in the stop position; he was look-

in, towards the station for the operator to give a message or order and not seeing him at the station he looked to the north side and saw the operator giving a stop signal with a white light and heard him call out something. He then went into the way car and applied the air and did not see the crossing flagmen at all. The train stopped about 3/4 mile west of Dexter, and he immediately went back to flag and called the dispatcher on the phone to find out why the train had been stopped.

Fireman Blanchard on extra 7934 stated that as his train came around the curve into Dexter he was breaking coal, and the brakeman was riding on the seat box looking out of the window and called clear board. He remembered the engine-man whistling for Dexter and for the two street crossings; when he realized his train was being stopped by an application of the brakes from the caboose he looked at the air gauge and found it registered about 8 pounds, and he then started to look out of the window when the crash came. He thought his train had not been standing more than 30 seconds when the collision occurred.

Engineman Rogers on extra 7934 stated that coming into Dexter the brakeman was calling the signals to him and called clear board; he was positive that he saw the order board and found it clear. He said he was thoroughly familiar with the location of signals on this part of the road and could not have mistaken any other signal for the train order signal; after the train came to a stop west of Dexter he

took no action to put out a flag, although he knew that according to the rules a flagman should have been sent forward to flag the eastbound track.

Conductor Leslie on extra 8480 stated that at Chelsea his train received orders to cross over and use the westbound track Chelsea to Dexter with rights over opposing trains; the brakes on his train were applied only a few seconds before the collision, and steam was probably not shut off at all, as the engineer would have had every reason to believe extra 7934 was on the passing track. His train was running about 45 or 50 miles an hour at the time of the accident.

Brakeman Casey on extra 8480 stated that his train received orders to use the westbound track Chelsea to Dexter with rights over opposing trains and that he felt no application of the brakes until just before the collision occurred.

This accident was caused by the failure of Engineer Rogers, Fireman Blanchard and Head Brakeman Lennon of extra 7934 to observe and obey a train order signal displayed in the stop position, as well as the stop signals given by Operator Hart. Engineer Rogers and Brakeman Lennon claim that the train order board was clear when their train approached it, but the weight of evidence is against this statement, as Operator Hart, Crossing Flagman Esk and Smith, Conductor Moody and Brakeman Eeles all agree in stating that the signal was red. Furthermore, Operator Hart was on the north side of the train when it passed and he could not have gotten to his office to change the signal after the engine passed it

and that there was no one else in the office where the train order signal levers are located.

Rule D101-a reads as follows:

When a train is suddenly stopped by the emergency application of the air brakes or by any cause, the engineman will at once display a lighted fusee from the side of the cab next the opposite main track, and if it cannot be immediately ascertained that the other main track is not obstructed a flagman must at once go forward to stop trains running in the opposite direction. The fireman will perform this service when necessary. As soon as it is known that the other track is not obstructed the flagman will be recalled. Enginemen will see that a flagman goes forward promptly under the above circumstances and will also immediately ascertain whether the other main track is obstructed.

Had this rule been complied with it is possible the accident might have been prevented or at least rendered much less serious. The evidence shows that Brakeman Lemon had walked back at least ten car lengths after the train came to a stop. Had he gone forward promptly with a lighted fusee it is possible he could have stopped extra 8488 before the collision.

The last paragraph in Double Track Forms of Train Orders in the book of rules states that in case of a reverse movement:

When practicable, trains moving with the current of traffic must receive the order at one station distant from the last named station; when it cannot be done, mention must be made in the body of the order.

Dispatcher Miller failed to comply with this rule.

Had it been written in the body of train order No. 101 "Westward train receive this order at Dexter," it is possible that the engineman of extra 8488 might have approached that station at a lower rate of speed and might have reduced speed

still more when he saw the headlight of the westbound train, thus tending at least to mitigate the severity of the collision; it might possibly have been prevented.

At the time of the accident the conductor and brakemen of extra 8488 had been on duty 8 hours and 2 minutes after 16 hours off duty; Engineman Rinsch and Fireman Wells had been on duty 4 hours and 15 minutes and 1 hour, respectively, after respective periods off duty of 7 and 17 hours. Conductor Mooly and Brakeman Lennon of extra 7934 had been on duty 7 hours and 15 minutes after 15 hours and 30 minutes off duty, while Brakeman Eslee had been on duty 7 hours and 15 minutes after more than 76 hours off duty. Engineman Rogers and Fireman Blanchard had been on duty 7 hours and 30 minutes after off duty periods of 16 hours and 45 minutes, and 5 hours and 30 minutes, respectively.

A.H.C.