

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY
CONCERNING AN ACCIDENT WHICH OCCURRED ON THE
CHESAPEAKE & OHIO RAILWAY AT UPPER SANDUSKY,
OHIO, ON MARCH 11, 1932.

May 31, 1932.

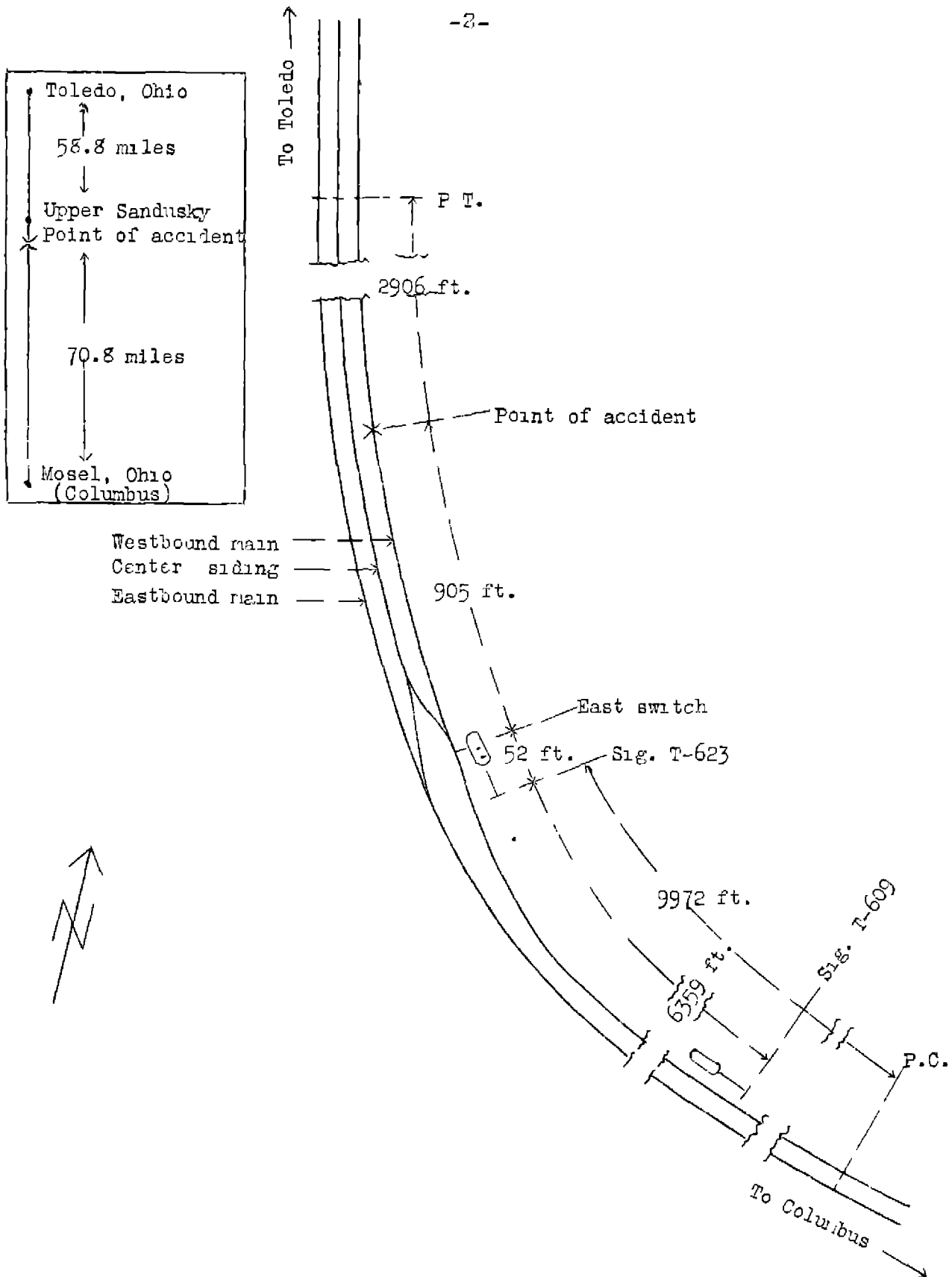
To the Commission:

On March 11, 1932, there was a rear-end collision between two freight trains on the Chesapeake & Ohio Railway at Upper Sandusky, Ohio, which resulted in the injury of three employees. This accident was investigated in conjunction with a representative of the Public Utilities Commission of Ohio.

Location and method of operation

This accident occurred on the Toledo Subdivision of the Hocking Valley Division, extending between Mosel, near Columbus, and Toledo, Ohio, a distance of 129.6 miles; in the immediate 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. At Upper Sandusky there is a center siding, about 1.4 miles in length; the accident occurred on the westbound main track at a point 905 feet west of the east switch leading to the center siding. Approaching from the east there is a $0^{\circ} 14'$ curve to the right more than $2\frac{1}{2}$ miles in length and the accident occurred on this curve at a point 2,906 feet from its western end. The grade is slightly undulating, being 0.21 per cent descending for westbound trains at the point of accident. Freight trains are limited to a speed of 40 miles per hour.

Signals T-623 and T-609 are located 957 feet and 7,316 feet, respectively, east of the point of accident; are of the three-indication, color-light type, displaying red, yellow, and green, for stop, approach, and proceed, respectively. The view is practically unobstructed.



Inv. No. 1758
Chesapeake & Ohio Railway
Upper Sandusky, Ohio
March 11, 1932.

The weather was changeable around the time of the accident, which occurred about 12.33 a.m., varying from broken clouds, with stars shining through, to light snow flurries, while the temperature was about 17° above zero.

Description

Westbound freight train extra 3026 consisted of 125 cars and a caboose, hauled by engine 3026, and was in charge of Conductor Kelly and Engineman Emick. This train departed from Parsons, 1.4 miles west of Mosel, at 8.05 p.m., March 10, according to the train sheet, and after setting out 30 cars en route was stopped on the westbound main track at Upper Sandusky at 11.25 p.m., following which two cars were picked up. In attempting to start the train, however, a knuckle was broken near the middle of the train. After standing at this point about 25 to 28 minutes, due to the break-in-two, the caboose was struck by train No. 91.

Westbound third-class freight train No. 91 consisted of 53 cars and a caboose, hauled by engine 3005, and was in charge of Conductor Weldon and Engineman Congrove. This train departed from Parsons at 9.40 p.m., March 10, according to the train sheet, set out 22 cars and picked up 5 cars en route, passed Morral, the last open office, 10.6 miles east of Upper Sandusky, at 12.22 a.m., March 11, about 40 minutes late, passed automatic signals T-609 and T-623 without the indications displayed being observed by the engine crew, passed the flagman of extra 3026, and collided with the rear end of extra 3026 while traveling at a speed estimated to have been between 25 and 40 miles per hour.

The caboose and the rear seven cars in extra 3026 were derailed, as were also engine 3005, the first seven cars, and also the thirty-second car in train No. 91; engine 3005 stopped on its right side north of the tracks, with its head end 325 feet beyond the point of impact. The 14 derailed cars in the two trains were scattered about within this distance, while the thirty-second car was crushed. The employees injured were the engineman, fireman and head brakeman of train No. 91.

Summary of evidence

Conductor Kelly, of extra 3026, stated that he rode on the engineman's side of the cab from Marion to Upper Sandusky, a distance of 13.3 miles. Some difficulty was experienced in observing signal indications on account of the light snow and a strong wind, while smoke from the stack also obscured the view somewhat; nevertheless all signal indications were observed, signal T-609 displayed a green indication, while signal T-623 displayed a yellow indication. After picking up the two cars at Upper Sandusky the flagman was recalled and an attempt was made to start the train, but in so doing a knuckle broke on the forty-ninth car. Conductor Kelly replaced the knuckle and when about ready to couple up the train again it was struck by train No. 91. Conductor Kelly said that he caught sight of the reflection from the headlight of train No. 91 when that train was somewhere between Harpster, located 6.5 miles east of Upper Sandusky, and the curve involved, also that just prior to the accident he saw the reflection from a lighted fusee at the rear of his train, but he could not say how far back his flagman was located.

Flagman Carlson, of extra 3026, stated that he was alone in the caboose and after his train stopped at Upper Sandusky he immediately went back to flag, following which he was recalled. Just as he returned to the caboose, at about 12.05 a.m., his train broke in two, so he again went back to flag, at about 12.08 a.m., taking with him a red lantern and a white lantern, a red fusee, and four torpedoes, and going back to a point which afterward measured approximately 1,117 feet from the caboose, or about three and one-half car-lengths east of signal T-623, and he still was at this point when he observed the reflection from the headlight of the following train, which was then in the vicinity of Harpster. Flagman Carlson stated that he held both lanterns in his hand, lighted the red fusee, about 12.25 a.m., and started to flag with it about the time train No. 91 reached a point about 1 mile away, and continued to wave stop signals with the lighted fusee until the engine was almost to him, when he stepped off the south rail of the westbound track to the fireman's side and ran over to the right-of-way fence, he still had the fusee in his hand when the engine passed him, at which time he estimated the

speed of that train to have been between 40 and 45 miles per hour. Flagman Carlson could not say how much of the fusee had burned when the engine passed him, saying that he was very excited, and he did not hear the whistle of train No. 91 sounded in answer to his flag signals. He had observed signals T-609 and T-623 when his own caboose passed them and they were displaying the proper stop indication, the caboose markers on his train were burning, and on his way back to flag, and also after the accident, he observed that signal T-623 was displaying a stop indication. Flagman Carlson further stated that he did not use torpedoes, as under the rules they are not to be used in automatic block-signal territory except in emergency; in this particular case he at first thought that train No. 91 was being brought to a stop and when he definitely realized that such was not the case he did not have time to cross over the track and step off on the engineman's side with the fusee. On the other hand, however, he said he had thought something was wrong when the engineman did not whistle for the road crossing east of where he was located. Statements of Engineman Emick, Fireman Otten and Head Brakeman Shipman, all of extra 3026, brought out nothing additional of importance.

Engineman Congrove, of train No. 91, stated that he observed automatic signal indications as far as Acton Hill, located about $12\frac{1}{4}$ miles east of signal T-623, but from there on he was unable to see even as much as a signal mast, due to condensation from the engine stack, so he told Fireman Graves to call signal indications across the cab. On reaching a point somewhere in the vicinity of signal T-609, however, the fireman informed him he could not see signal indications either, consequently that signal was passed without its indication having been observed, and the engineman permitted the train to continue at a speed of about 35 or 40 miles per hour. The engineman then crossed over to the fireman's side of the cab and inquired as to their location, having become lost so far as landmarks were concerned, and immediately went back to his own side of the cab, when somewhere in the vicinity of signal T-623, and made about an 8-pound brake-pipe reduction, signal T-623 also was passed without its indication having been observed, and shortly afterwards the collision occurred, at which time he estimated the speed to have been reduced to about 25 miles per hour as a result of the light air-brake application that had just previously

been made. Engineman Congrove said he did not see the caboose at any time prior to the accident and that he did not see the flagman or extra 3026. This was the worst night he had ever experienced, on account of condensation, the engineman saying it was so bad that he could not see the ground; the blower was on fully, but it did not raise the condensation. Engineman Congrove said he had obtained ample rest at home before starting on this trip, that he felt well, was wide awake, and did not have any conversation with the fireman or head brakeman after leaving Marion except as to signal indications, and he further stated that the only way he could have observed signal indications would have been to stop at every signal location, but instead of so doing when he was lost and unable to see on account of condensation, he just took a chance and his train proceeded farther along the road than he thought was the case. While he did not consider anyone but himself to blame for the accident, saying that he should have definitely ascertained just what indications were displayed before passing the signals involved, yet in his opinion more protection would have been afforded had a torpedo been used, or had the flagman of extra 3026 stepped off the track to the engineman's side with the fusee, where the engineman might have seen him. In connection with the use of a torpedo, however, he said that was something for the flagman to decide, adding that the night was clear and that had everything been all right he could have seen ahead for a distance of one and one-half miles.

Fireman Graves, of train No. 91, stated that the engineman told him to watch for signal indications from his side, which he did, until he saw a green indication on the signal east of Wyandotte, located about 2 miles east of the east end of the center siding at Upper Sandusky. He then closed the window on his side of the cab, snut off the stoker, and again opened the window, following which he told the engineman that he could no longer see signal indications from his side. The head brakeman then went over to the right side of the cab and the fireman understood him to say that the block was "OK", although the head brakeman might have referred to the train, after which the head brakeman crossed back to the left side and sat down. The speed was about 40 to 45 miles per hour, and when in the vicinity of the east end of the center siding at Upper Sandusky the engineman came over to his side of

the cab and inquired as to the location and the fireman said he informed the engineman where they were, whereupon the engineman returned to his own side of the cab and made a light application of the air brakes, the collision occurring shortly afterwards, at which time the fireman was still sitting on his seat box. Fireman Graves did not see the flagman of extra 3026, a fusee, or the markers on the caboose ahead prior to the accident, he was not lost, being fully aware of his location at all times, and knew that signals T-609 and T-623 had been passed without their indications having been observed, and he said that the reason he did not go over to the engineman's side of the cab for the purpose of trying to observe signal indications was because the head brakeman had gone over there.

Head Brakeman Davis, of train No. 91, gave testimony similar to that of Fireman Graves as to what transpired; they noticed nothing unusual about the engineman's condition, he appeared normal and was apparently maintaining a lookout ahead through the open window. Head Brakeman Davis stated that when he crossed over to the right side of the cab it was for the purpose of looking back over the train while rounding the curve and when he said "OK" he had reference to the train, not to signal indications, he had looked ahead also, but was unable to see signal indications on account of the smoke rolling down and trailing close to the side of the cab. Head Brakeman Davis then went back to the left side of the cab and sat on his own seat box, behind the fireman; he also was aware of his location and estimated the speed to have been between 30 and 35 miles per hour when the engine passed over the east switch of the center siding at Upper Sandusky, in which vicinity the engineman asked and was informed as to the location. Head Brakeman Davis did not see anything of the flagman of extra 3026, the fusee, or the markers on the caboose ahead, and had no intimation of impending danger prior to the accident. Neither the fireman nor the head brakeman thought that it was possible for their engine to have passed a fusee on the fireman's side of the train without their having seen its reflection. After the accident the head brakeman saw the flagman of extra 3026 coming ahead on the left side of the train with a lighted fusee, but the head brakeman did not know how much of the fusee had been burned at that time.

Conductor Weldon and Flagman Ruehrmund, of train No. 91, were riding in the caboose at the time of the accident. Just after its occurrence they saw the flagman of extra 3026 standing on the left side of their train, about four or five car-lengths west of their caboose; the flagman then had two lanterns, red and white, but no fusee, nor did they see the glare from any fusee that might have been thrown to the ground. Conductor Weldon and Flagman Ruehrmund observed signal T-623 after the accident and it was then displaying a red indication.

Towerman Mueller, at Upper Sandusky, stated that he saw the reflection from the headlight of train No. 91 when it came into view about 2 miles east of the tower, the tower being located at the west end of the center siding, he then looked toward the rear end of extra 3026 and saw the glare from a red fusee, at about the east switch of the center siding, or farther east, but he was unable to tell whether or not it was being waved. He watched it until the headlight of train No. 91 was close to it and then continued to watch to see if anyone opened the east switch of the center siding, as it was intended to let train No. 91 run around extra 3026, provided it headed in at that point, but shortly afterwards report of the accident was made to him.

Careful inspection and test made of all signal apparatus after the accident disclosed it to be in proper working order.

Conclusions

This accident was caused by failure to observe and obey signal indications, for which Engineman Congrove, Fireman Graves and Head Brakeman Davis are responsible.

Engineman Congrove said it became impossible to see signal indications, due to steam and smoke from the stack trailing close to the cab and obscuring the view, even with the blower on, and he then instructed the fireman to call signal indications from the left side of the cab. Finally the fireman could no longer see signal indications and so informed the engineman. Instead of reducing speed sufficiently to observe signal indications, however, Engineman Congrove allowed his train to continue at speed, and it was not until he had passed signals T-609 and T-623, without observing their indications

and without even seeing any landmarks, that he crossed over to the fireman's side and ascertained his location. The brake application the engineman then made was effective, but he did not see the train just ahead, or the flagman, and therefore made no emergency application of the brakes prior to the accident. Fireman Graves and Head Brakeman Davis said they knew their location, and also knew two signals had been passed without being seen by them, and they also knew the engineman could not see signals; under these circumstances there is little reason for their failure to keep the engineman informed.

Flagman Carlson said he lighted a red fusee and started to give stop signals with it when train No. 91 was about 1 mile distant, and continued to give such signals until the engine had almost reached him, when he stepped off the track on the fireman's side and ran over to the fence, the burning fusee still being in his hand when the engine passed him. All of those on the engine of train No. 91 said they did not see either the flagman or a fusee. The conductor of extra 3026, however, saw the fusee while at the point where his train broke in two; it also was seen from the engine of that train, 95 car-lengths from the rear end, as well as by the towerman, who was more than 7,000 feet west of the rear of the train. After the accident the fusee was seen by the head brakeman of train No. 91, and the flagman, without a fusee, was seen by the conductor and flagman of train No. 91 within a few car-lengths of their caboose, and a burned-out fusee was afterwards found between the two main tracks about at the point where the flagman had been using it. Under these circumstances it seems apparent that the flagman was using a fusee and that neither the fusee nor the flagman was observed by any of those on the engine of train No. 91. No good reason is apparent as to why the fireman and the head brakeman should not have seen the fusee unless they turned their heads to speak to the engineman when he crossed over to their side in order to ascertain his location.

The flagging rule of this railroad reads in part that "Except in emergency, fusees and torpedoes will not be used by trainmen in automatic block signal territory." Such a provision, when consideration is given

to the impracticability of defining what constitutes an "emergency", results in leaving the matter entirely to the judgment of the flagman, and in this particular case he decided to flag with the fussee which he had lighted when he first saw the approaching train, several miles distant. It is difficult to say how this flagman could have determined that an emergency existed until the train was close to him, at that time, however, the absence of any acknowledgment of his stop signals and his failure to hear any road crossing whistle signals sounded should have been adequate information that an "emergency" had arisen within the meaning of the rules, and the use of a torpedo would have given the approaching engineer an opportunity of reducing speed very materially before the accident occurred.

All of the employees involved were experienced men, although it is noted that Engineman Congrove said he was making his first trip as an engineman since September, 1931, and Fireman Graves was making his first trip since January 1, none of these men had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.