

1965

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN
ACCIDENT ON THE NEW YORK CENTRAL RAILROAD AT KILE, OHIO,
ON FEBRUARY 7, 1935.

March 25, 1935.

To the Commission:

On February 7, 1935, a freight train on the New York Central Railroad broke in two at Kile, Ohio, the caboose being crushed by a helper engine coupled behind it and the wreckage striking another freight train moving in the opposite direction on an adjacent siding, the accident resulting in the death of 2 employees. This accident was investigated in conjunction with the Public Utilities Commission of the State of Ohio.

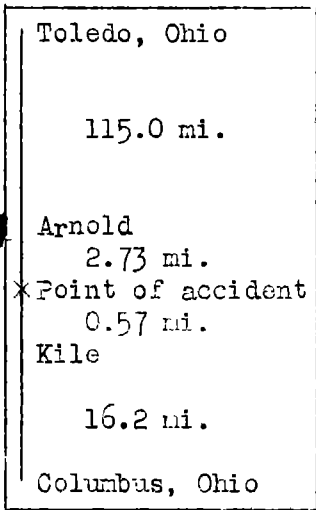
Location and method of operation

This accident occurred on that part of the Ohio Central Division extending between Columbus and Toledo, Ohio, a distance of 134.5 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time table, train orders, and a manual block-signal system. A passing track parallels the main track on the east, the switches being located 562 feet and 5,514 feet north of the station; the accident occurred 2,453 feet north of the south switch. The track is tangent for several miles in both directions. The grade for north-bound trains is generally ascending for several miles; at Kile the grade is practically level, followed by 0.1 percent descending grade for approximately 7,000 feet and then ascending grade varying from 0.2 to 0.5 percent to Arnold, a station 3.3 miles north of Kile.

Circular Notice No. 10, provides as follows:

"Helper engines assisting north-bound trains out of West Columbus yard will couple up the train line, air cut in and working.

All freight trains having helper engines out of West Columbus, unless otherwise directed, will stop at Kile and take water, at which point air on helper engine will be disconnected, and after train is ready to proceed, helper engine will assist the train to a point one and one-half ($1\frac{1}{2}$) miles north of Kile when necessary.



North switch of passing track

* Point of accident

2,453 ft.

South switch of passing track

562 ft.

Station



Inv. No. 1965
 New York Central R.R.
 Kile, Ohio
 Feb. 7, 1935

When it is necessary for the helper engine to go to Arnold or north, the air must be coupled in and used to the point where the helper engine is to be detached. After the air is cut out, the helper engine may give the train a start, not to exceed one (1) mile."

The weather was cloudy and it was dark at the time of the accident, which occurred about 8:05 p.m.

Description

Train First No. 97, a north-bound freight train, consisted of 51 loaded and 19 empty cars and a caboose, hauled by engine 38, and was in charge of Conductor Thayer and Engineman Smith. This train left West Columbus at 6:35 p.m., according to the train sheet, with helper engine 57, in charge of Engineman Bennett, coupled behind the caboose. South of the station at Kile a stop was made and the air hose between the helper engine and the caboose was disconnected; the train then departed from this point at 8:03 p.m. with the helper engine still assisting, and while running at a speed of 18 or 20 miles per hour the engineman of the helper engine applied his independent brake and partially closed the throttle for the purpose of detaching the helper from the train; the engine was not uncoupled, however, and he then released the brakes on his engine and began to use steam to provide slack enough to uncouple, and at about the same time an emergency application of the brakes occurred on the train, apparently caused by the train breaking in two between the caboose and rear car. The caboose and rear car were practically demolished, being thrown against the side of Extra 82, which was moving slowly southward on the passing track, and parts of their superstructures were thrown into some empty hopper cars in Extra 82. When Train First No. 97 stopped the front end of the helper engine was up against the wreckage of the caboose and rear car, while the twentieth, sixty-sixth, and sixty-ninth cars and also the helper engine were slightly damaged.

Extra 82, a south-bound freight train, consisted of 63 cars and a caboose, hauled by engine 82, and was in charge of Conductor Wilgus and Engineman Crum. This train was in the siding at Kile clear of the main track, and was moving at a speed estimated to have been between 2 and 3 miles per hour when the wreckage from Train First No. 97 fouled its rear end. The fifty-seventh and sixty-third cars were slightly damaged, and the sixty-sixth, sixty-seventh, and sixty-eighth cars were turned over on their left sides parallel with the east of the passing track.

The employees killed were the conductor and flagman of Train First No. 97.

Summary of evidence

Engineman Smith, of engine 38, hauling Train First No. 97, stated that the air brakes were tested at West Columbus and after the helper engine was coupled on the rear end an application-and-release test was made; no trouble was experienced in handling the train en route. The last stop before the occurrence of the accident was south of the station at Kile, this being for the block signal which was displayed on account of meeting two south-bound trains, and also for the purpose of disconnecting the air-brake hose from the helper engine; the air brakes operated properly when making this stop. After receiving a proceed block signal and also a proceed signal from the rear of his train, he started and attained a speed of 18 or 20 miles per hour; when his engine was near the north end of the siding he felt a slight jerk and after traveling a few car lengths there was an application of the brakes which felt as if the brakes had been applied by means of the conductor's valve in the caboose, and the train stopped. After waiting a few minutes and finding that the brake-pipe pressure could not be restored, Head Brakeman Brandt went to the rear to locate the trouble, and the first that the engineman knew of the accident was when the brakeman after returning to the engine told him what had happened. The train subsequently was moved to Arnold in two sections, no unusual action of the brakes being noted in making these movements.

Head Brakeman Brandt, of Train First No. 97, was on the engine from the time the train left West Columbus until the accident happened. Just north of Kile he felt the slack run out as if the helper engine had been cut off but the jerk was only slight; the stop followed immediately, but there was no severe shock and he thought the air brakes had been applied by means of the conductor's valve. The brake-pipe pressure could not be restored, however, and he went to the rear of the train where he found the rear end of the refrigerator car ahead of the caboose caved in, the caboose tipped up on some cars in Extra 82 and the rear end caved in and the helper engine standing up against the wreckage. He made a cut ahead of the third car from the rear, went to the head end and informed the engineman and fireman of what had happened, and then called the dispatcher, who instructed them to take the head portion of the train to Arnold, but the train parted when they attempted to start and on going back again he found a knuckle broken on the twentieth car, making it necessary for them to take the train to Arnold in two parts.

Engineman Bennett, of helper engine 57, Train First No. 97, stated that nothing unusual occurred in the handling of the train between West Columbus and Kile. When the engineman on the head engine started the train from Kile, Engineman Fennett began to assist with his engine and after reaching a point about opposite the middle of the siding and while running about 20 miles per hour, he received a signal from the rear of the caboose to cut off and at once applied the independent brake and partly closed the throttle; however, he felt the slack go out of the whole train, and at the same time he received a proceed signal from the rear of the caboose, indicating the cut had not been made and calling for him to take slack. He then released the engine brake, opened the throttle, and the crash came almost immediately. Engineman Bennett did not see any one of the crew of engine 45, which also was on the passing track, exchanging signals with the men on the caboose of the train he was helping. It further appeared from the statements of Engineman Bennett that he had been in helper service about 10 years and that it was the usual practice to shove the train about 2 miles at Kile but in this case the train had been shoved less than 1 mile when he received the signal to cut off. The method followed in this case in order to cut off the engine was the usual practice and in accordance with instructions.

Flagman McClain, of helper engine 57, stated that when the train stopped at Kile he closed the angle cocks and separated the air hose between the engine and caboose. After the train started he was on the fireman's seat box looking ahead and said he did not receive a signal to reduce speed, but when the cut was not made on the first attempt he received a proceed signal on his side and called to the engineman to give them the slack; the engineman released the brake and started to use steam to provide slack when the accident occurred.

Fireman Martin, of helper engine 57, stated that he was adjusting the slides and starting coal; he knew the engineman applied the engine brake and eased the throttle and felt the train pull the engine, and then he heard the flagman call to the engineman to give them the slack.

Flagman Noyes, of south-bound helper engine 45, which was at the south end of the passing track, stated that he was standing opposite the south switch of the passing track, on the east side, when Train First No. 97 pulled by; he saw fire flying from the rear wheel of the head truck of a car 12 or 15 car lengths from the rear end, which he thought was due to a brake sticking; he walked to within 3 feet of the caboose as it passed him and called to the flagman, who acknowledged his signal. Engineman Woodworth and Fireman Miller, of engine 45, also saw sparks flying at a point from 8 to 12 cars ahead of the caboose and thought it was

a brake sticking, and Fireman Miller signaled the men on the rear end with a flashlight, which signal apparently was acknowledged.

Engineman Crum, of south-bound Extra 83, stated that his train entered the siding at Kile for Train First No. 97 and that he noticed nothing wrong as that train was passing. Statements of other members of the crew of this train developed nothing additional.

Repair Track and Wreck Foreman Kay stated that on his arrival at Kile he discovered the head end of the caboose on top of a hopper car, lying on its side on the siding and the rear end demolished; the coupler on the rear end appeared to be all right but the draft arms were spread. The rear end of the refrigerator car ahead of the caboose was thrown over toward the siding and the knuckle of an ARA coupler on that end was broken, this knuckle having only about 70 percent sound metal on account of numerous sand holes. The rear end of the second car ahead of the caboose was off center and the angle cock on the head end of this car was broken off, but the cars still were coupled at this location and in his opinion the breaking off of the angle cock was a result and not the cause of the accident. The cars in Train First No. 97 were inspected at Arnold but nothing was found to indicate that brakes had been sticking or wheels overheated.

Examination of the damaged equipment after it had been moved to West Columbus disclosed that the coupler on the head end of engine 57 was in good condition, and although two of the three uncoupling lever brackets had been broken it could still be uncoupled easily with one hand. On the rear end of the caboose the uncoupling lever was missing, but the coupler was in good condition and could be uncoupled easily by lifting on the short piece remaining of the chain which had been provided to uncouple from the caboose platform.

Discussion

Going northward from Kile the brake pipe was not coupled through to the helper engine; the track is level for some distance and then there is a slightly descending grade, followed by a fairly steep grade to a point north of Arnold; the point where the accident occurred was not the customary location for cutting off the helper, it being the practice to shove trains a considerable distance farther north than was done in this case; approaching the point of accident members of the crew of an engine on the passing track had conveyed signals to the conductor or flagman, or both, that a brake was sticking 10 or 15 car lengths ahead of the caboose which information appeared to have been acknowledged,

and examination of the equipment after the accident indicated that the couplers and uncoupling mechanism between caboose and helper engine had been in good condition. In view of all these facts, it seems more than probable that Conductor Thayer did not intend to transmit a cut-off signal to Engineman Bennett at this point but rather to give him a slow signal expecting to stop his train to release a sticking brake and that this signal was misinterpreted by Engineman Bennett as a cut-off signal. The pulling out of the slack in the rear end of the train by the retarding effect of the helper engine on which the brake was fully applied and the throttle partly closed, and the fact that the rear knuckle of the rear car was materially weakened due to sand holes, were no doubt responsible for the break-in-two which caused the emergency application of the train brakes. At that time the train brakes were not coupled through to the helper engine; consequently the brakes on the helper engine were not automatically applied and it was at this time that the engineman of the helper engine released his independent brake and began to use steam to provide the slack necessary for uncoupling, the result being a severe internal collision.

Conclusions

This accident was caused by a break-in-two, due to a defective knuckle, when preparing to uncouple a helper engine from a train in motion.

Respectfully submitted,

W. J. PATTERSON

Director.