

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN
RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED
ON THE MAINE CENTRAL RAILROAD NEAR GARDINER,
ME., ON FEBRUARY 27, 1925.

June 12, 1925.

To the Commission:

On February 27, 1925, there was a rear-end collision between two freight trains on the Maine Central Railroad near Gardiner, Me., which resulted in the death of four caretakers who were accompanying cars loaded with potatoes.

Location and method of operation

This accident occurred on that part of the Portland Division which extends between Portland and Bangor, Me., a distance of 136.93 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, the signals being of the two arm, two-position, lower quadrant type. The accident occurred within yard limits of Gardiner, 169 feet west of the east yard-limit board and 713 feet west of automatic block signal L-570; approaching this point from the east there is a slight curve to the right 1,546 feet in length which varies in curvature from 30' to 53', then 938.5 feet of tangent, followed by a 1° 30' curve to the right 1,063.3 feet in length, the collision occurring on this last mentioned curve at a point 770 feet from its eastern end. The grade for westbound trains is descending, level for a short distance, 0.21 per cent ascending for a distance of 1,250 feet, 0.31 per cent descending for 1,150 feet, level 650 feet and then 0.44 per cent descending to the point of accident, 150 feet distant. The point of accident could be seen a distance of 664 feet, while signal L-570 could be seen a distance of about one-half mile. Under the rules flag protection against following extra trains is not required within yard limits.

The weather was clear at the time of the accident, which occurred at 9.28 a.m.

Description

Westbound freight train extra 627, in charge of Conductor Monahan and Engineman Frank, consisted of engine 627 and a caboose. It departed from Bangor at 12 o'clock midnight, picked up 58 cars at Northern Maine Junction, 5.64 miles distant, and departed from that point, according to the train sheet, at 12.17 a.m., It passed Augusta, the last open office, 6.38 miles from Gardiner, at 8.51 a.m., and was brought to a stop within the yard limits at Gardiner at 9.08 a.m. It had been standing at this point about 20 minutes when the rear end of the train was struck by extra 623.

Westbound freight train extra 623 consisted of 58 cars and a caboose, hauled by engine 623, and was in charge of Conductor Frazier and Engineman Raynor. This train, also originating at Bangor, departed from that point at 2.17 a.m., passed Augusta at 9.14 a.m., passed automatic block-signal L-578 which was displaying a caution indication, passed signal L-570 in stop position and collided with the rear of extra 627 while traveling at a speed estimated to have been about 10 miles a hour.

As a result of the collision the caboose and four cars were practically demolished, two cars badly damaged and the seventh car sustained slight damage to one end. The front end of engine 623 was also damaged. The four caretakers who were killed were in the caboose at the time of the accident.

Summary of evidence

Engineman Frank, of extra 627, said he reduced the speed of his train immediately after passing signal L-570 which was displaying a caution indication and brought his train to a stop about three or four car lengths from the next signal, signal L-564, which was displaying a stop indication, on account of a train being in the preceding block. Engineman Frank said he noted that the stop was made at 9.08 a.m., and that the collision occurred at 9.28 a.m.

Conductor Monahan, of extra 627, said that after his train stopped within the yard limits at Gardiner a hot box was discovered several car lengths back from the engine and while he and the head brakeman were attending to it the flagman came up from the rear end and informed him of another hot box on the 20th car

from the caboose. He directed the head brakeman to attend to the first hot box and he and the flagman went back to look after the one in the rear. In answer to his inquiry the flagman told him that the rear of the train was past the yard-limit board, and relying upon the yard-limit rule both he and the flagman gave their attention to the hot box; while they were thus engaged the rear of the train was struck by extra 623.

Flagman Potter, of extra 627, stated that as he started toward the head end of the train after it had been brought to a stop he noted that signal L-570 was displaying a stop indication. His other testimony in general corroborated that of Conductor Monahan.

Engineman Raynor, of extra 623, stated that the air brakes in his train were tested before it departed from Bangor, and while his testimony was somewhat conflicting it appeared that operating conditions were normal and that he experienced no difficulty in making the five stops en route and in properly controlling the speed of his train during the entire trip from Bangor to the point of accident, a distance of 80.36 miles. He said his train was moving at a speed of about 25 miles an hour at the time it approached signal L-578, and after calling the caution indication displayed by this signal he permitted the train to drift to a point about half-way through the block before he applied the brakes in a service application of about 10 pounds. Speed had been reduced to about 20 miles an hour and the brakes were still applied in the service position when he saw signal L-570 about 10 or 12 car lengths distant. He immediately placed the brake valve in the emergency position. Shortly after passing the signal he saw the caboose of a train ahead, called a warning to the fireman and head brakeman and jumped from the engine about the time it was approximately five car lengths from the caboose, at which time the speed of his train had been reduced to about 10 miles an hour. Engineman Raynor thought he had used good judgment in the way in which he approached signal L-570, and attributed the accident to failure of the brakes to hold the train.

Fireman Mooney, of extra 623, stated that his train was drifting at a speed of about 25 miles an hour as it approached signal L-578, which he said he did not see but which Engineman Raynor called in the caution position and he and Head Brakeman Knowlton answered. A brake-pipe reduction was made when his train was about half-way through the block and later the brake valve

was placed in the emergency position and the engineman called a warning to jump. After several times changing his statements concerning the indication displayed by signal L-570, he finally stated that he did not see that signal but that Engineman Raynor called it as being in the stop position. He thought that perhaps the brake valve was not placed in the emergency position until the engineman saw the caboose. Fireman Mooney further stated that he had previously noticed that the air brakes were not functioning as he thought they should, but he had not commented upon the fact either to the engineman or the head brakeman.

Head Brakeman Knowlton, of extra 623, stated that as far as he could observe the control of the train was normal with respect to stops and slow-downs made prior to the occurrence of the accident. His other statements were uncertain and wavering; he first said the train was into the block its full length before a brake-pipe reduction was made, then changed this statement to about one-half way through the block, and then finally admitted that all his testimony as to when and where the brake application was made was largely a matter of guess and without real foundation. He said the warning of the engineman to jump, and the emergency application of the brakes, were practically simultaneous and that by the time the fireman and engineman had jumped from the engine it was too late for him to do so.

Conductor Frazier stated that the air brakes were tested before his train departed from Bangor, and there were four cars on which the brakes were not working. His train made seven stops between Bangor and the point of accident and as far as he was aware no difficulty was experienced either in properly controlling the speed or in making the various stops, saying that some of these stops were made from as high a rate of speed as was being made at the time his train passed signal L-578. He attributed the cause of the accident to the weight of the train and the prevailing weather conditions, apparently not thinking Engineman Raynor was in any way responsible. The statements of Brakeman Strout, of extra 623, corroborated those of Conductor Frazier and brought out no additional facts of importance.

Assistant Superintendent of Motive Power Noyes said he was on eastbound passenger train No. 1, which is scheduled to leave Gardiner at 9.19 a.m. He noticed one train, extra 518, in the block near the station and a second westbound freight train immediately behind it.

A few minutes later his train passed a third westbound freight train, about 2 miles east of the point of accident, which appeared to be running at a speed of not less than 30 miles an hour. Upon the arrival of his train at Augusta several minutes later he learned of the accident at Gardiner and immediately returned to the scene of the accident. He found the automatic signals in the vicinity of the point of accident to be displaying the proper indications; none of the cars in the train of extra 623 had been damaged, and when informed by Engineman Raynor that the brakes were not operating as the engineman thought they should, the train was removed to Augusta where an air-brake test was conducted, using engine 623 after plugging the broken brake pipe on the front end. The brakes were found to be operative on all but three cars and were otherwise in good condition. Mr. Noyes was of the opinion that the accident was due to the failure of Engineman Raynor to begin to reduce the speed of his train immediately after passing signal L-578 and to so control it as to be able to stop it before passing signal L-570.

A test was subsequently made to determine the distance at which the caboose of extra 627 standing at the point of accident was visible to the engineman of an approaching westbound train, and it was established that he would have a clear view of it when it was 664 feet distant.

Conclusions.

This accident was caused by failure to obey signal indications, and by failure to enter yard limits under full control, for which Engineman Raynor is responsible.

While Engineman Raynor/did not think the brakes held properly, examination and test after the occurrence of the accident disclosed no condition which could have prevented him from bringing the train to a stop had he manipulated the brake valve in a proper manner. The evidence indicates that the brakes had worked properly in making various stops within the distance of approximately 81 miles which the train had traveled and nothing was developed to indicate that they worked any differently when approaching the point of accident. On the other hand, it appears that Engineman Raynor, according to his own statement, did not begin braking until his engine was half way through the block or within approximately 1,600 feet of signal L-570, although he could

have seen the stop indication of that signal a distance of about 2,600 feet. There is some doubt as to the location of a train at the time the brake valve was placed in the emergency position, although it would appear that the engine must have been within a very short distance of the signal. Regardless of this fact, however, Engineman Raynor knew when he passed the distant signal that the home signal was at that time displaying the stop indication, he was thoroughly familiar with the location of the home signal, and knew that he was about to enter yard limits, and under these circumstances there does not appear to be any reason for his failure to begin braking soon enough to have his train under such control as to be prepared to stop at signal 570, or to enter the yard limits under full control.

Had an automatic train stop or train control device been in use on this line, this accident would not have occurred.

All the employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND

Director.