Issued: November 26, 2025 Railroad Investigation Report: RIR-25-18

Carolina Coastal Railway Employee Injury

Location	Rocky Mount, North Carolina
Date	November 19, 2024
Accident type	Employee injury
Train	2 railcars
Track	Main track, signalized
Hazardous materials	None
Fatalities	0
Injuries	1

Summary

On November 19, 2024, at 2:55 p.m. local time, a Carolina Coastal Railway conductor sustained serious injuries after being struck by a railcar during a switching operation on the Nash County Subdivision Main Track near Rocky Mount, North Carolina.[1] The injured conductor was working to reposition two coupled railcars that had been gravity-dropped onto the track when the trailing railcar struck him, resulting in the amputation of his leg below the knee.[2] Visibility conditions at the time of the accident were clear, and the temperature was 70°F.

On the day of the accident, the two-person crew (an engineer and a conductor) was assigned to carry out a switching operation on the Nash County Subdivision main track. The portion of noncontrolled track on which the switching operation took place extended in a southeastern direction between the Pinecrest highway–railroad crossing and the Hammond Street highway–railroad crossing.[3] This portion consisted of the main track and two side tracks: the Nash County Subdivision Main Track (this track was furthest

[1] (a) Visit ntsb.gov to find additional information in the public docket for this NTSB accident investigation (case number RRD25FR004), including detailed factual reports about the circumstances of the accident. (b) A *switching operation* involves moving railroad equipment from one track to another or to different positions on the same track.

[2] (a) *Coupled* refers to connecting one piece of equipment (such as a railcar) to another. (b) In a *gravity drop*, a railcar is released at the top of a descending grade, and gravity forces the railcar to roll down the grade.

[3] *Noncontrolled track* refers to a segment of railroad track where trains can operate without receiving direct, real-time authorization from a train dispatcher or control operator.

south and where the accident took place), the High School Siding (this set of track ran parallel to the main track on the north side), and a small setout track (this set of track was furthest north and extended just beyond the Pinecrest crossing). (See figure.)

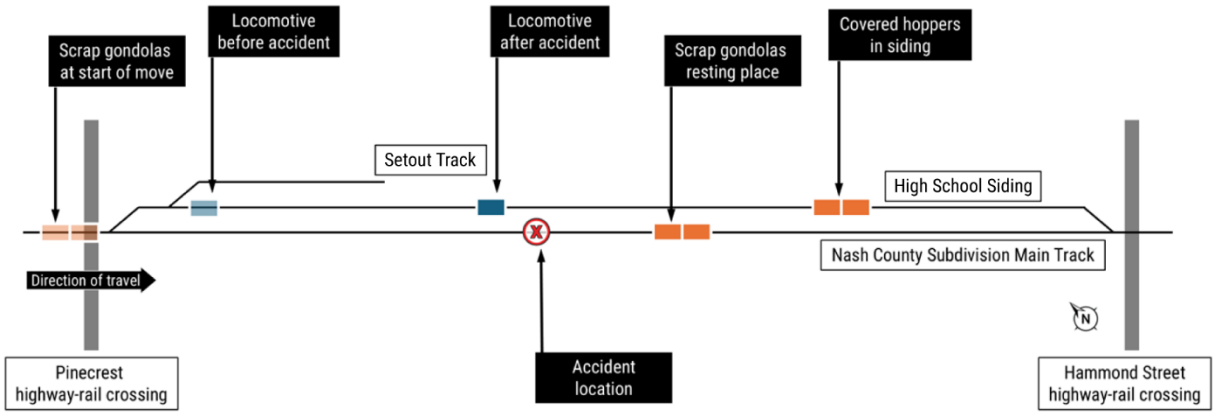

Figure. Diagram of the accident scene.

The crew's tasks included shoving two scrap gondola railcars (shoved by a single locomotive) onto the Nash County Subdivision Main Track and positioning them at the top of the grade, which traverses the Pinecrest highway–railroad crossing. Once the gondola railcars were in position at the top of the grade, the crew uncoupled the railcars and moved the locomotive onto the High School Siding. During interviews with the NTSB, the conductor stated that, once the locomotive was repositioned on the siding track, the engineer lined the switch back for main track movement, and the two gondola railcars were ready for the gravity-drop switching operation.

According to interviews with the engineer, after the conductor bled the air from the airbrakes of the standing railcars and released their hand brakes, the railcars started slowly descending the grade. When the railcars passed the locomotive, the engineer (who remained in the control cab of the locomotive) looked for the conductor and saw him walking alongside the free-rolling railcars. At this point, the engineer radioed the conductor to ask why he was not ready to secure the hand brake. The engineer reported that, following his attempts to contact the conductor by radio, he observed the conductor speed up his movement alongside the railcars and out of the engineer's sight behind the railcars. He did not see the conductor again until after the accident, when he observed the conductor injured and on the ground. The gondolas came to a stop about five car lengths east of where the conductor was injured.

The conductor told the NTSB that, upon hearing from the engineer, he climbed onto the railcar ladder while it was in motion. He then attempted to secure the hand brake from the ladder of the gondola railcar and not the platform. The conductor further stated he slipped from the railcar while the cars were still in motion and fell between the two gondola railcars. As the conductor was still conscious after the accident, he was able to radio the engineer and instruct him to call 911. The conductor ultimately suffered the loss of his leg.

Postaccident examination of the crew's training and work history revealed that the conductor was initially hired in April of 2021 and qualified as a conductor in January of 2024. Operations training—specifically concerning how to properly conduct a gravity drop—was based on guidance provided in the Carolina Coastal Railway General Code of Operating Rules, Book No. 7, Rule 103-H.[4] In addition, Carolina Coastal Railway Rule 612 provides the safety requirements for moving between a cut of cars as well as for performing a task—in this case, securing a hand brake—when between a cut of railcars.[5]

[4] Carolina Coastal Railway Rule 103-H: "Kicking or dropping cars will only be permitted when such movement can be made without danger to employees, equipment, or contents of car. Before dropping or kicking cars, crew members involved must have a full understanding of the movements."

[5] Carolina Coastal Railway Rule 612: "When necessary, in the discharge of duty, to climb through a standing train or cut of cars, employees must keep both hands free to permit a firm hand hold, make every effort to cross car with end sill platform, be prepared for movement at any moment and maintain … three points of contact (either both feet and one hand or both hands and one foot) at all times. Feet must not be placed on knuckles, uncoupling lever, drawbar assembly or any cushioning drawbar device. Stay clear of any movable part of car. Do not cross through moving cars, except in cases of emergency."

Analysis

In this accident, a Carolina Coastal Railway conductor suffered a serious injury when he was struck by a gondola railcar during a gravity-drop switching operation.

During his interview, the conductor acknowledged that he fell from the gondola car. He explained he may have lost his grip on the ladder of the railcar. A postaccident examination of the trailing gondola car determined the hand brake was applied. In his interview, the conductor stated he had tied the hand brake from the ladder and not the platform. Carolina Coastal Railway General Code Rule 612 requires the person maneuvering between a cut of cars to perform a task (like securing a hand brake) to make every effort to do so from a standing position on the platform and to maintain 3 points of contact with the railcar on which they are positioned. Reaching for the hand brake from the ladder may cause the person performing the task to lose their center of gravity. When the person applies the hand brake from the platform, they can reach and operate the brake from a more secure position.

The NTSB also reviewed Carolina Coastal Railway's operating rules and timetable instructions pertaining to gravity drops and movement between railcars during its investigation and determined the only pertinent guidance provided to rail crews was in Carolina Coastal Railway's Operations Rules 103-H and 612. Furthermore, investigators determined that Rule 103-H was vague and did not address where employees should be positioned while dropping railcars.

As Carolina Coastal Railway had no formal training or instructions for trainee conductors to learn how to perform gravity-drop moves, trainee conductors were expected to learn how to perform this task through an on-the-job training process in which trainees were supervised by qualified conductors who served as mentors for learning this task. Carolina Coastal Railway, in an effort to expand upon their training processes, would rotate trainee conductors among various qualified conductors to allow trainees to garner multiple perspectives for how to complete various job requirements. This training method can introduce variance in techniques taught and can lead to inconsistencies in identifying safe practices for certain tasks. Consequently, the railroad did not have a reliable, performance-based method to ensure their conductor trainees could safely perform gravity-drop moves.

Probable Cause

The NTSB determines that the probable cause of the Rocky Mount, North Carolina, Carolina Coastal Railway conductor accident was the conductor losing his grip while attempting to apply the hand brake from an unsafe position on the railcar. Contributing to the accident were inadequate training methods that likely led the conductor to perform an unsafe gravity-drop move.

Lessons Learned

This accident underscores the importance of clearly defined procedures and the importance of thorough training that emphasizes safe positioning and technique when conducting gravity-drop switching operations. The conductor's decision to apply the hand brake from the side ladder rather than the platform, as mentioned in Rule 612, combined with the lack of specific guidance in Rule 103-H, shows the need for a clearly defined and standardized written procedure for gravity-drop moves, as the lack of established routine contributed directly to the unsafe conditions that led to this accident. This highlights the importance of ensuring that all high-risk operations are governed by detailed, unambiguous instructions.

After the accident, the Carolina Coastal Railway informed NTSB that they have adopted a sound and well-defined training procedure for performing gravity-drop moves. Consistent procedures will only be taught by their most experienced conductors, who have all been designated as qualified to provide training in a consistent manner.

The revised training process includes performance-based evaluation in which the trainee is required to perform a given procedure no less than three times correctly without intervention before they are considered qualified to perform said task on the job. Each employee's record of training will be maintained in that employee's file along with all other personnel information related to performance qualifications.

Furthermore, Carolina Coastal Railway will be monitoring gravity-drop procedures and the adherence to the policy set forth in the same manner as in Title 49 *Code of Federal Regulations* Part 217.[6]

Carolina Coastal Railway also corrected shortcomings regarding gravity-drop move procedures in their Rule 103-H, and on February 28, 2025, they issued General Order 3-25, which includes specific instructions on how to perform gravity-drop moves. Included in these instructions are the locations where an employee should be positioned to perform the various aspects of a gravity-drop move and when gravity-drop moves are allowed.[7]

[6] Follow the link for further information on 49 *CFR* 217.

[7] NTSB verification of the implementation of General Order 3-25 was provided by Carolina Coastal Railway via e-mail. See the public docket for further information pertaining to General Order 3-25.

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For more detailed background information on this report, visit the NTSB Case Analysis and Reporting Online (CAROL) website and search for NTSB accident ID RRD25FR004. Recent publications are available in their entirety on the NTSB website. Other information about available publications also may be obtained from the website or by contacting –

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