



# Inside THE RAIL

From NASA's Confidential Close Call Reporting System



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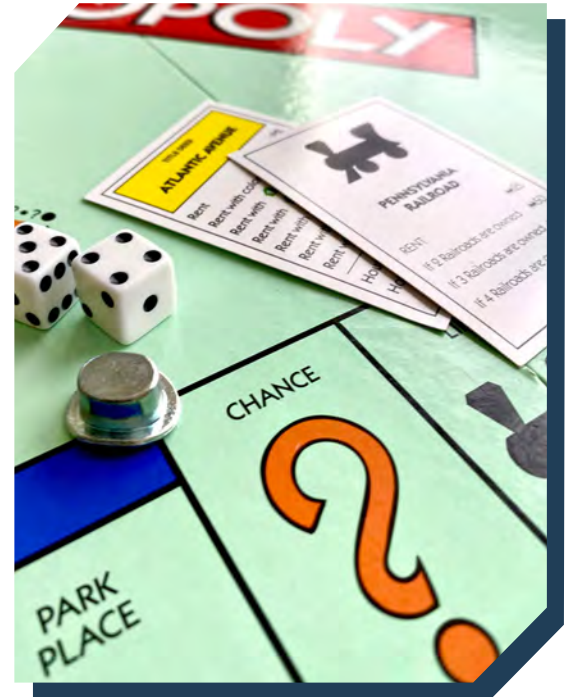
## Playing a Game of Chance...

When playing your favorite board game, there are always strict rules on how to play; however, we have all been tempted from time to time to bend the rules or even play with “house rules”. No matter which way you look at it, this defeats the purpose of the game. The same can be said for following rules and regulations of required daily tests for the operation of trains and equipment. Like having to pay rent to the owner of the valued Park Place in Monopoly™, railroad employees should always follow official rules and instructions when completing the necessary tests and inspections required daily.

On a daily basis, railroad employees can come across many tests and inspections to complete. This includes: Positive Train Control related tests like Departure tests; Class I/IA/II Inspection tests, Running Air Brake tests, On Track Equipment inspections, Signal, Road Crossing Warning inspections, and many others!

Unlike Monopoly™, there are no “Chance” cards laying around. Failure to properly inspect cars or complete tests can lead to serious consequences.

In this issue of *Inside the Rail*, C<sup>3</sup>RS provides close-call events from different crafts revealing instances that occurred in which tests and inspections were not completed as stated in the rules. The collection of narratives and callbacks gives insight to what led up to the mistake, and how the outcome affected the reporter.



### Do not Pass Go!

With a different crew and a change of routine, this Engineer explains how a crew missed a Class II Brake Test.

■ *Typically, I get into the locomotive cab, cut the control stand in, set up Positive Train Control (PTC) and wait for the Carman to give me a Class II Brake Test. The Carman usually rides in the cab of the previous train, so I know if he is at work today or not. He started work, but usually comes out early to give me my Class II Brake Test. If he is not there that day, I make sure to get the test from the Conductor or Assistant Conductor. Then, the Conductor closes the doors and we leave.*

*My normal crew was off and I had a different crew, but today the normal Assistant Conductor slid up to the Conductor position and I got an Assistant Conductor off the extra board. The Conductor closed the doors and we left before the Carman could come out and give us a Class II Brake Test. After about a mile, I thought to myself that we did not get a Class II. Upon returning, I asked the Carman if he gave us a*

*test, he said that we were leaving when he walked up. So, it was a bit of departing when the Conductor closed the door, the extra crew, and the Carman being a bit later than normal.*

#### C<sup>3</sup>RS Expert Analyst's Callback Summary:

The reporter, an Engineer, attributed the missed Class II Brake Test to deviating from the normal routine prior to departure. The normal crew meshes well together and the reporter stated the expectation was the Conductor knew the Carman would perform the brake test. The Engineer said a written checklist for pre-departure activities could have prevented missing the test.

### Pick a Car(d)!

When distracted by a complicated pick up en route, a Conductor realizes they forgot to complete an important task.

■ *There was a late bad order on the outbound Train. We dropped off the bad order on the Track and then went to pick up the replacement. We grabbed the replacement, but had trouble getting the knuckles to separate. I went over to*

the other side to separate the cars. We finally got the car separated and did a Class II Brake Test. After thinking about it, we probably should have done a Class I Brake Test because we didn't have an air slip for the car we were picking up.

## Read the Instructions!

An Engineer relives the outcome of what happens when you mix an uncommon task with complicated instructions.

■ Our Crew took over the train from a previous Crew at the Station. I was told everything was good with the equipment; however, once I cleared west of the Control Point, I checked the paperwork and noticed the paperwork was expired. I never ran a pre-departure Positive Train Control (PTC) test before, so I followed the instructions in the General Notice and I believe I did everything correctly according to the provided instructions.

I ran the tests and slipped the Cab Car with new paperwork. I notified the Dispatcher and proceeded with our run on the Train with that paperwork. For our next round trip, Mechanical reran the test and provided new paperwork. I may have done the pre-departure tests incorrectly. The instructions are not great in the General Notice and I feel like they should be a lot clearer. A lot of Engineers rarely have to run these tests and it's unfortunate that when we do, we are provided with such bad instructions as to how to do it.

### C<sup>3</sup>RS Expert Analyst's Callback Summary:

The reporter, an Engineer, had not completed a PTC departure test since Engineer training. The Engineer further explained that Mechanical Department employees normally complete the test. The Engineer was unsure if the test was done properly. When the Engineer arrived at the station, the Mechanical Department came out to rerun the PTC test. The Engineer watched the procedure and the Mechanical Department seemed to do other tasks rather than what was stated in the General Notice. The Engineer believes there should be a pamphlet that Engineers could refer to if the test needs to be completed and possibly a PowerPoint during rules class or training to ensure knowledge of how to properly run the test.

## Missing Pieces!

Not completing tests or inspections allows for the opportunity to miss something big, just ask this Signal Maintainer.

■ At approximately XA:00 hours, there was a bridge opening on the Bridge and, after the bridge was re-seated, one of the

Detectors for Track X failed. Signal Maintainer X and Signal Maintainer Y responded to investigate the failure, performed a Test and the Detector worked as intended. Onsite at the bridge opening was Signal Supervisor X, along with the Buildings/Bridges Department, the Structure Department, Track Department and Electrified Rail Department. Later that day, at approximately XJ:30 hours, a Track Foreman noticed the miter rail for Track X was not seated properly, and there was a sheared bolt head that was wedged under the miter rail. The Track Department requested an emergency opening of the bridge, removed the obstruction, and [the] Signal Department retested the Detectors.

Apparently, the miter rail on Track X that was not seated properly, was the same Detector that failed during the bridge opening.

A contributing factor to the problem was that the Signal Maintainers did not perform a full inspection of the miter rail and should be re-instructed. Also, there was very poor lighting on the bridge. More important, the departments that are responsible for the miter rail and saddle system did not perform a thorough inspection of their equipment after the bridge opening and this should be a requirement.

### C<sup>3</sup>RS Expert Analyst's Callback Summary:

The reporter, a Signal Maintainer, added that there needs to be someone specific who is responsible for the final inspection of the tracks or bridges, anytime repairs are made. The reporter suggested that since the Track Inspector is the one who found the issue after multiple trains had already traversed the area, maybe the carrier should have the track inspected prior to the track segment being released for operation.

## Did You Know?

If you submit a C<sup>3</sup>RS report, a NASA C<sup>3</sup>RS Expert Analyst may call you if you do not include enough information or to better understand the safety issues you are sharing. It is very important that you return our call within three days so that your identification (ID) strip (sent by the U.S. Mail) can be returned to you quickly.

The more information you include in your report, the faster the ID strip can be returned to you!

Report Intake By Craft January through September 2022	
Transportation	2,127
Engineering	61
Mechanical	56

**C<sup>3</sup>RS**  
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<https://c3rs.arc.nasa.gov>

Monthly Report Intake Previous 3 Months	
July	262
August	281
September	258