



Washington Legislative Office

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Mr. Robert Lauby
Associate Administrator for Railroad Safety and Chief Safety Officer
Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Mr. Lauby:

I am writing on behalf of the SMART Transportation Division to express our concerns about the accessibility of Positive Train Control (PTC) displays to both operating crew members in locomotive cabs.

As you know, the Federal Railroad Administration's final rule concerning PTC systems, published January 10, 2010, requires that PTC displays be accessible to both crew members in the locomotive cab. Specifically, Paragraph (f) states that "the PTC system's onboard apparatus shall be so arranged that each member of the crew assigned to perform duties in the locomotive can receive the same PTC information displayed in the same manner and execute any functions necessary to that crew member's duties."

Furthermore, the paragraph highlights how critical it is that the conductor has access to this information by stating that "the locomotive engineer shall not be required to perform functions related to the PTC system while the train is moving that have the potential to distract the locomotive engineer from performance of other safety-critical duties."

Despite the clarity of these thoughtful regulations, our members continue to report situations where the locomotive engineer is routinely and significantly distracted by being forced to interact with the PTC system while the train is moving. In addition, the conductor is unable to access information that is necessary to performing the duties of the job. Conductors simply do not have appropriate access to PTC systems across the country.

As a matter of practice, conductors cannot respond to PTC-related functions that are directly related to their duties and thus are unable to provide any relief to overburdened locomotive engineers who are overly distracted by PTC. On the BNSF and other railroads, the PTC system only allows the locomotive engineer to interact with it. In BNSF's case, conductors can only see what is prompted by the locomotive engineer, and the soft keys on the conductor's PTC display are inoperative, meaning only the locomotive engineer can log into and respond to the system's constant prompts.

The required interaction with the PTC system can become intense at times, causing a distraction that prevents the locomotive engineer from focusing full attention on operating the train, a direct violation of the regulation. Some examples of this are as follows:

1. Every time a train's consist changes, the PTC display reports a "Consist Update," and the locomotive engineer is required to acknowledge and complete a review of the train's makeup. This is to ensure the accuracy of the consist so that PTC can determine stopping distances accurately. Consist updates occur whenever there is a change in the train makeup. For example, when a train passes an AEI reader, when there is a manual change in the train's makeup, or when a yardmaster updates a train's consist. If the train's consist is not accurate, the locomotive engineer has to request an updated consist on the screen while the train is moving. This is clearly something that the conductor, not the locomotive engineer, should be doing.
2. Track bulletin Form B's appear on the PTC display as a blue cross-hatch over the track. It asks if permission has been received before it will let the train through the Form B. The locomotive engineer, having the only functioning soft keys, must acknowledge the query. It would be safer to have an additional acknowledgement from the conductor. The engineer should be focusing on train handling and could be distracted and inadvertently acknowledge the key before receiving permission to enter a restricted area from the employee in charge.
3. The PTC display requires acknowledgment from the crew of a train's "track selection." The system asks what track is being entered on, and after a selection is made, the PTC screen asks if this is correct. This is most common when the train is initially entering a main track. This PTC interaction all must be performed by the locomotive engineer while operating the train out of yards over multiple crossings, often while also whistling for crossings and talking to railroad carmen via the radio.
4. Temporary Form A, B and C's are automatically downloaded into the PTC system. Each of these directives needs to be confirmed. This requires the locomotive engineer to jump back and forth between the PTC track screen to the mandatory directives screen while the train is moving. This is incredibly distracting. The conductor also must ask the locomotive engineer to change screens so that the new directives can be viewed, something the conductor should be able to do independently.
5. When crossing gates fail, a crossing warning message will pop up on the PTC display requiring the engineer to interact with the PTC system while also slowing or stopping the train as it approaches the crossing. The system will ask if there are 1, 2, or no flaggers at the crossing. Not surprisingly, there have been cases where the wrong answer is entered because of the tremendous demands of the multiple tasks placed on the locomotive engineer at this crucial time in train operations. The conductor should be interacting with the PTC system in this situation, not the engineer.
6. While operating a train at restricted speed, any switch that is being approached must be verified by the locomotive engineer regarding the route to be taken. This is particularly distracting because the locomotive engineer must interact with the PTC display to avoid a brake application. The conductor should be performing these interactions.

7. Currently, crews get paper copies of all Form A, Form B, crossing warning notifications, and other directives. The future plan is to deliver these directives electronically, all of which will require an electronic acknowledgement by the locomotive engineer, a huge distraction, to be sure. This will be particularly problematic in cases when total PTC failure occurs as all this information would be inaccessible with the absence of hard copies.

Other issues not directly related to the respective duties of the conductor and engineer that concern us and should concern FRA are:

1. When passing through an automatic interlocking, the PTC system disables itself at the advance signal. The area between the two advance signals on the PTC display turns gray and all information is blanked. After the train passes the approach signal, no matter what it displayed previously, the PTC display will show a clear signal. This could cause one to think that the signal you came in on was clear, which often is not the case. When exiting the block, the PTC display shows the speed of the block where it reengaged, not the speed at the rear of the train, leading the crew to believe that they can proceed at a much higher speed than allowed.
2. When approaching switch turnouts, the PTC display shows the speed for the signal if it controls the turnout and not the more restrictive speed of the turnout until the train is in the turnout. If the signal is a "diverging approach," the speed at the signal shows 40-mph on the PTC display, even though the speed at the turnout five feet or so beyond the signal may only be 30 mph. The display will not show the 30-mph speed until the signal is passed. In these cases, PTC should always show the most restrictive speed.

PTC is a great safety aid, but it has become a major distraction to locomotive engineers, and railroads are not allowing conductors to access information necessary to their duties.

I respectfully ask that the FRA investigate the issues I have raised in this letter to determine whether BNSF and other railroads are complying with the clear mandates spelled out in the final rule.

Respectfully submitted,



John Risch
National Legislative Director
SMART Transportation Division

Cc: John Previsich, President SMART Transportation Division