



Amtrak expects positive train control will be interoperable with other railroads but could better measure system reliability

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WASHINGTON – Amtrak has installed Positive Train Control technology on the tracks it owns and expects its systems to be interoperable with host and tenant railroads by year’s end, but it can take steps to better ensure its systems are reliable, according to an Amtrak Office of Inspector General report released today.

PTC is a safety technology that automatically applies a train’s brakes to slow or stop it to prevent collisions, derailments, or other accidents resulting from unsafe conditions. Amtrak and other railroads are required by law to have PTC implemented by December 31, 2020. According to the report, the company has invested hundreds of millions of dollars to install and operate its three PTC systems, including about \$370 million from fiscal years 2008 through 2020.

The report credits Amtrak’s “good program management practices” for advancing PTC implementation, to include ensuring executive oversight and establishing a cross departmental team focused on system implementation and achieving interoperability with other railroads. The OIG found, however, that Amtrak cannot fully measure PTC reliability because it does not have the electronic tools to easily access the data necessary for it and the FRA to monitor system performance. As a result, reports on PTC reliability are incomplete and Amtrak cannot easily identify potential problems it may need to address promptly or longer-term.

The OIG reviewed Amtrak’s manual process to compile PTC reliability data and found it to be inefficient and error prone. For example, OIG auditors identified at least twice as many reliability incidents in a month than Amtrak officials identified after reviewing the same source of information.

Program officials acknowledged the need for electronic tools to more easily capture PTC data but said they have not fully researched available options because they have been focused on meeting the implementation deadline. They also cited funding constraints because of the pandemic. According to the report, Amtrak may not realize the full benefits of its investments in PTC unless it has the tools to effectively track system performance.

The company also faces two risks that may diminish the safety benefits PTC is intended to provide, the report said.

First, PTC systems sometimes do not initialize before a train leaves a station or may disengage along a route. Amtrak officials pointed out that, when such incidents occur, trains must still abide by traditional measures to ensure safe operations, such as obeying signaling systems and rules that guide engineers. On January 1, 2022, the FRA will require implementation of stringent practices to address these situations such as preventing trains from departing initial stations if systems do not initialize before a trip and requiring trains to operate at slower speeds when PTC systems disengage en route.

The company has not consistently implemented the practices FRA will begin enforcing in January 2022 to mitigate risks when such incidents occur, the report said. For example, when Amtrak's newest PTC system, the Interoperable Electronic Train Management System, does not initialize prior to a train's departure, Amtrak permits dispatchers to decide if the train can still depart if addressing the failure will cause more than a 10-minute delay. Amtrak officials told the OIG they agreed that a more detailed assessment could help identify whether additional actions are needed in the interim and said a review was underway to assess the company's processes when PTC does not operate as intended.

The second risk the OIG identified involved data input processes for PTC systems. Amtrak's PTC systems require accurate data to know when to enforce temporary speed restrictions or prohibit trains from entering areas where employees are working. Currently, dispatchers must manually enter these data. Amtrak has taken steps to help ensure the data dispatchers enter are accurate, but there is still a risk of human error, according to the report. Amtrak officials said they intend to assess the level of risk this situation poses and if it warrants mitigation.

To address the report's findings, the OIG recommended that Amtrak research options for electronic tools to access data needed to monitor PTC performance and submit what it selects for funding consideration. In addition, the OIG recommended that Amtrak determine if additional mitigations should be implemented when PTC does not operate as intended and initiate its plan to assess the risk of incorrect data entry related to PTC.

More information is included in the full report which can be downloaded on the OIG's website: <https://direc.to/fRTS>.