



Update on Positive Train Control (PTC)

Committee-of-the-Whole
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Status of Congressional Action

Surface Transportation Extension Act of 2015

- Congress revised Positive Train Control systems requirements:
 - Extended deadline from December 31, 2015, to December 31, 2018
 - By default, the deadline for full implementation of an FRA-certified and interoperable PTC system is December 31, 2018
 - Permit carriers to provide for an alternative schedule and sequence for implementing a PTC system, subject to DOT/FRA review
 - A railroad may request an “alternative schedule and sequence” to complete the full implementation of a PTC system by a deadline that is both as soon as practicable and no later than December 31, 2020

Congressional Mandate

Requirements for Extension of Alternative Schedule

The congressional PTC mandate does not authorize or give FRA any discretion to approve an alternative schedule, unless a railroad submits a written notification to FRA that demonstrates it has met all statutory criteria under 49 U.S.C. § 20157(a)(3)(B).

TRE PTC Notification

- FRA Administrator Letter to TRE
 - Concern of progress toward fully implementing PTC
 - TRE's Quarterly PTC Progress Report as of December 31, 2017
 - FRA is concerned that TRE will not be able to install all PTC system hardware by December 31, 2018

TRE Notification Progress

- Acquired all spectrum necessary for implementation, consistent with the TRE's governing PTC Implementation Plan (PTCIP)
- Employee training required under the statute Advanced Testing and/or Implementation is scheduled to start August 2018
- TRE will have initiated FRA-approved revenue service demonstration (RSD) on at least one territory that is required to have operations governed by a PTC system, or met other criteria established by FRA

Alternative Schedule

To obtain FRA's approval of an alternative schedule and sequence, a railroad must (in this order):

1. Meet the statutory criteria necessary to qualify for an alternative schedule under 49 U.S.C. § 20157(a)(3)(B)(i)–(vii)
2. Submit a written notification to FRA and demonstrate, to FRA's satisfaction, that the railroad has met the statutory criteria to qualify for an alternative schedule
3. Installed by December 31, 2018, **all** PTC system hardware that will be installed for PTC system implementation, consistent with the railroad's governing PTCIP

Statutory Deadline and Alternative Schedule

- Limited Scope of the Alternative Schedule:
 - During the maximum two-year period, a railroad may continue to test its system, obtain PTC System Certification, achieve interoperability (i.e., the ability of the PTC system to control the locomotives of the host railroad and tenant railroads), and fully implement its PTC system
- FRA's Role:
 - The Positive Train Control Enforcement and Implementation Act of 2015 (PTCEI Act) requires FRA to approve a railroad's alternative schedule if a railroad submits a written notification and demonstrates the railroad has met the statutory criteria necessary to qualify for an alternative schedule under 49 U.S.C. § 20157(a)(3)(B)

Requirements for Extension of Alternative Schedule

- Acquired, by December 31, 2018, all spectrum necessary for implementation of the railroad's PTC system, consistent with the railroad's governing PTCIP
- Complete the employee training required under 49 CFR § 236, subpart I for all applicable personnel in any territory, or segment thereof, where the PTC system is currently being operated in RSD or revenue service
- For railroads, not Class I (Freight) railroads or Amtrak, the railroad has initiated FRA-approved RSD on at least one territory that is required to have operations governed by a PTC system, or met any other criteria established by FRA

PTC Status

- Radio spectrum
 - PTC 220 LLC – Lease Agreement
 - Non-Disclosure Agreement (NDA) signed
 - Liability insurance - \$300M secured
 - Approved by DART and Trinity Metro Boards
- Radio supplier
 - Meteorcomm
 - NDA signed
 - Negotiating End User License Agreement
 - Liability insurance - \$300M secured
 - Approved by DART and Trinity Metro Boards
 - Base Station and Onboard Radios – Delivered March 2018

PTC Status

- Fiber Optic Cable (FOC)
 - Agreement with MCI/Verizon executed - \$3M
 - Notice To Proceed issued July 13, 2016
 - Design & install 34 miles of FOC
 - Two-mile build out of conduit
 - Eighty handholes
 - Equipment Maintenance Facility
 - Switches, signals & instrument houses

PTC Update

- Onboard Installation
 - Installation on PH Locomotive Pilot May 4, 2018
 - 100% Completed
 - Installation on Bombardier Cab Pilot May 14, 2018
 - 100% Completed
 - 2nd Installation on PH Locomotive June 21, 2018
 - 100% Completed

PTC Equipment Installations



Cab Car 1005



Locomotive 126



Locomotive 122

PTC Update

- Dispatch
 - Local servers were installed last fall supporting local Back-Office Systems/Computer Aided Dispatch (CAD)
 - Workstation hardware upgraded for both dispatch and clerk to be compatible with new PTC ready Train Management and Dispatch System (TMDS)/CAD
 - PTC ready TMDS/CAD released for internal testing
 - Roll-out of TMDS/CAD to be complete July 2018

PTC Update

- Wayside
 - Over half the Wayside Interface Units (WIU) are installed, and all remaining kits are in local warehouse
 - Network for WIU communications approved at 60%, parts are on order. Installation scheduled for July 2018
 - 220Mhz radio location is complete and approved by Transportation Technology Center, Inc. (TTCI)

PTC Challenges

- Limited vendors (Meteorcomm / Wabtec)
- Availability of PTC equipment & radio spectrum in correct range
- Availability of industry expertise (technical)
- Funding for design / construction / testing / integration / certification / on-going software updates
- Interoperability / convergence of PTC implementations throughout the country in a short time frame
- FRA staffing requirements
- Capital Projects



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