

**Joint RFA for Amendment of  
Mixed System  
Positive Train Control Safety Plan**

## Revision History

Revision	Date	Changed By	Summary
1.0	6/28/2023	Kip Verbeek	Finalized for publication.

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# 1 Introduction

In accordance with 49 Code of Federal Regulations (CFR) Part 236 Subpart I, the railroads listed in *Section 5 - Verification of Modified PTC System [49 CFR §236.1021 (m)(2)(iv)]* are filing the following Request for Amendment (RFA) to their Mixed System Positive Train Control (PTC) Safety Plans (PTCSP).

## 1.1 Purpose

Under 49 CFR Part 236, subpart I, a railroad is not exempted from compliance with any requirements of subparts A through H of this part, or part 233, 234, and 235 of this chapter unless the applicable PTCSP, as defined under §236.1003 and approved by FRA under §236.1015 provides for such an exception per §236.1013. *See* §236.1001 (c)(2):

This RFA proposes an alternative to the definition of “initial terminal” as set forth in 49 CFR §236.829 for all Interoperable Train Control (ITC)-compliant host railroads’ PTCSPs to better align PTC operations with other existing FRA regulations.

## 1.2 Scope

This document includes all information required by the process outlined in 49 CFR §236.1021 (m):

- (m) No changes, as specified under paragraph (h)(3) or (4) of this section, may be made to an FRA certified PTC system or an FRA-approved PTCSP unless the host railroad first complies with the following process:
  - (1) The host railroad revises its PTCSP to account for each proposed change to its PTC system and summarizes such changes in a chronological table of revisions at the beginning of its PTCSP;
  - (2) The host railroad electronically submits the following information in an RFA to the Director of FRA’s Office of Railroad Systems and Technology:
    - (i) A summary of the proposed changes to any safety-critical elements of a PTC system, including a summary of how the changes to the PTC system would affect its safety-critical functionality, how any new hazards have been addressed and mitigated, whether each change is a planned change that was previously included in all required analysis under §236.1015 or an unplanned change, and the reason for the proposed changes, including whether the changes are necessary to address or resolve an emergency or urgent issue;
    - (ii) Any associated software release notes;
    - (iii) A confirmation that the host railroad has notified any applicable tenant railroads of the proposed changes, any associated effect on the tenant railroads’ operations, and any actions the tenant railroads must take in accordance with the configuration control measures set forth in the host railroad’s PTCSP;
    - (iv) A statement from a qualified representative of the host railroad, verifying that the modified PTC system would meet all technical requirements under this subpart, provide an equivalent or greater level of safety than the existing PTC

system, and not adversely impact interoperability with any tenant railroads;  
and

(v) Any other information that FRA requests...

The following sections provide the information required by (m) above.

## 2 Summary of Proposed Changes [49 CFR §236.1021 (m)(2)(i)]

### 2.1 Definition of Initial Terminal

Per 49 CFR §236.1003 (a), the, “Definitions contained in Subpart G and H of this part apply equally to this subpart.” 49 CFR §236.829 defines an initial terminal as, “The starting point of a locomotive for a trip.” The railroads signatory to this RFA seek to use the alternate definition of initial terminal based on the definition provided in 49 CFR §232.5. Using this definition, an *initial terminal* will be defined in each railroad’s PTCSP as, “the location where a train is originally assembled.” Original assembly of a train is defined under the heading Class I brake test-initial terminal inspection in 49 CFR §232.205 (a)(1) and 49 CFR §238.313 (b)(1) for freight and passenger/commuter trains, respectively.”

#### 2.1.1 Reason for Change & Safety Impact

Railroads have been safely operating while utilizing the term “initial terminal”, as used in 49 CFR §236.1029 (b), in accordance with existing air brake test regulations (49 CFR §232.205 and 49 CFR §238.313) since railroads began operating PTC in Revenue Service Demonstration in 2013. The decision to use these definitions made after discussions with and guidance from FRA at that time. Reliance on the initial terminal definition from Parts 232.205 and 238.313 provides a functionable, proven alternative that works well for both air brake inspections and PTC initializations. AAR and its member railroads are not aware of any accidents or incidents resulting from the use of the initial terminal definition in Parts 232 and 238. Additionally, AAR and its member railroads have no record that use of the definition in Parts 232 and 238 has reduced safety in any way. Therefore, the railroads are jointly seeking exception for the term initial terminal as defined in §236.829<sup>1</sup>.

This alternative definition also aligns the operating plans for PTC with existing procedures when other issues, such as air brake defects, are found on equipment at non-repair facilities. While the following sections will show that the exposure is low, the potential impact of delays to customers and on the general rail network that will be incurred due to failures in these situations is not in the best interest of the public. It is also important to note that this alternative definition does not alleviate the need to successfully initialize PTC at a terminal location where the train is originally assembled.

**How many additional trains would operate with enroute failure rules in 2023 with this proposed definition of initial terminal versus the existing definition?**

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<sup>1</sup> Although the railroads acknowledge FRA’s interpretation that the definition of initial terminal in §236.829 applies to the requirements in Part 236, Subpart I, the filing of this Joint RFA does not constitute acceptance by the railroads that FRA’s interpretation is correct. The railroads do not waive any arguments by filing this Joint RFA regarding the applicability of §236.829 to Part 236, Subpart I, that might be raised in other forums

Based on experience, the railroads signatory to this RFA believe that the amount of additional train miles that would be operated without PTC protection would be negligible. As a representative example, BNSF trains ran approximately 125 million miles with PTC protection in 2022. Of those 125 million miles, approximately 1000 of those miles were operated by trains that, under the current definition of initial terminal, would not be allowed to proceed until the PTC system was repaired. Using the definition set forth in §§232.205 and 238.313, these trains would be allowed to proceed per the enroute failure rules in 49 CFR §236.1029. This equates to an increase of 0.0008% in mileage run under the enroute failure rules.

**With such a small number of train moves impacted, why would a change in the definition of initial terminal be necessary?**

While this quantity seems insignificant, these rare occurrences can have cascading effects that result in a large impact on rail fluidity and the ability to promptly deliver necessary freight. This is because the moves impacted by this proposed definition typically happen at outlying facilities where additional locomotive power is not traditionally staged and would take an excessive time to reach. Network fluidity can be negatively impacted if congestion occurs at locations that prevent other trains from clearing the mainline.

Additionally, when a passenger train fails to initialize at a location where repairs cannot be made, the affected train will need to be cancelled as non-repair locations do not store extra locomotive power stationed for contingencies. For many of these locations, the turnback location is only a station track in the middle of a mainline with a passenger platform. It is simply not feasible to block a main line with standby locomotives for use as a PTC contingency plan.

When an affected train is cancelled, the passengers must be transported using alternative means. In some cases, the alternative transportation could be a bus, taxi, or ride sharing, all of which are less safe alternatives to transportation by rail. In other scenarios, passengers would be transferred to the next available train departure, which could create serious overcrowding conditions as two trainloads of customers are combined onto a single passenger train.

Failure to provide greater flexibility will also negatively impact important freight rail service such as coal train operations to a utilities provider. These trains are originally assembled in a rail yard. They then proceed to a coal mine to pick up a load with the intention of dropping off that load at a utility facility in the opposite direction before returning to the rail yard. Under the current definition of initial terminal, if that train fails to initialize PTC at the coal mine it will not be able to proceed to the utility's customer until the locomotive has been repaired or replaced. The same limitation would also apply if the train was unable to initialize PTC at the utility customer's facility on its way back to the rail yard or the coal mine. Making repairs at these locations carries additional inherent risks when compared to making repairs at a designated repair facility which are staffed and designed to make these repairs in the safest manner possible. In some locations it can take upwards of 24 hours to get appropriate replacement power to an outlying location. These mines and utilities customers often have limited slots available for loading and unloading of goods, and a train remaining unmoved in one slot for a long period of time can have cascading detrimental effect on other trains set to load/unload as well.

### **3 Associated Software Release Notes [49 CFR §236.1021 (m)(2)(ii)]**

No updates to the software are necessary for this change. Therefore, there are no associated software release notes with this update to the PTCSP.



## **4 Confirmation of Tenant Notification [49 CFR §236.1021 (m)(2)(iii)]**

All host and tenant railroads are aware of the proposed changes, potential effects on other host or tenant railroads, and whether any additional actions are necessary by other host or tenant railroads. The proposed changes were discussed between the FRA and AAR's PTC Executive Committee (PTCXC) which represents ITC-compliant railroads and communications concerning these changes were carried out in relevant ITC committees. Each signatory to this RFA confirms that each of their tenant railroads are aware of the proposed changes, any potential effects on other host or tenant railroads, and whether any additional actions are necessary to support this change.

## 5 Verification of Modified PTC System [49 CFR §236.1021 (m)(2)(iv)]

On behalf of the railroad signatories in this RFA, BNSF is uploading this Joint RFA to the FRA SIR site.

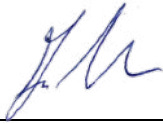
Pursuant to 49 CFR §236.1021 (m)(2)(iv), a qualified representative of each host railroad has verified that the modified PTC system, as described in this RFA, meets all technical requirements under 49 CFR Part 236, Subpart I, provides equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads. Below is a list of railroads that have included signatures in Appendix A, as a part of this joint RFA:

- Alaska Railroad
- BNSF Railway
- Caltrain
- Canadian National Railway Company
- Canadian Pacific Railway Company
- Conrail
- CSX Transportation
- Kansas City Southern Railway Company
- Kansas City Terminal Railway
- National Passenger Railroad Corporation (Amtrak)
- New Mexico Rail Runner Express
- Norfolk Southern Railway Company
- North County Transit District
- Northeast Illinois Regional Commuter Rail (Metra)
- Northern Indiana Commuter Transportation District
- Southern Florida Regional Transportation Authority
- Southern California Regional Rail Authority (Metrolink)
- Terminal Railroad Association of St. Louis
- Union Pacific Railroad

## **Appendix A: Joint RFA Signatures**

# Verification of Modified PTC System

On behalf of **Alaska Railroad Corporation**, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



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Name George Newman

06/16/2023

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Date

Title: Senior Director – Advanced Train Control Systems

For questions or further discussion specific to **Alaska Railroad Corporation**, please contact the following:

Name: George Newman

Title: Senior Director – Advanced Train Control Systems

Email: Newmang@akrr.com

Phone: 907-290-9038

# Verification of Modified PTC System

On behalf of **BNSF Railway**, the signatory below verifies that the modified PTC system, as described in the RFA for BNSF's PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



6/23/23

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Chris Matthews

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Date

AVP Network Control Systems

For questions or further discussion specific to **BNSF Railway**, please contact the following:

Kip Verbeek

Assistant Director, Network Control Systems

[kip.verbeek@bnsf.com](mailto:kip.verbeek@bnsf.com)

817-991-2757

## Verification of Modified PTC System

On behalf of Caltrain, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



NAME: Carlos Ortega

6/27/2023

Date

POSITION: Deputy Director, Systems Engineering

For questions or further discussion specific to Caltrain, please contact the following:

Carlos Ortega

Deputy Director, Systems Engineering – Rail Development

[ortegac@caltrain.com](mailto:ortegac@caltrain.com)

650.551.6191

# Verification of Modified PTC System

On behalf of Canadian National (CN), the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



6/19/23

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NAME

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Date

Director Sr Network Strategies

For questions or further discussion specific to CN, please contact the following:

Patrick Shields

Manager – PTC Regulatory

Patrick.shields@cn.ca

312-256-3987

# Verification of Modified PTC System

On behalf of Canadian Pacific Railway Company, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



6/20/2023

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NAME: John Leonardo

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Date: 6/20/2023

POSITION: GM Wayside Train Control

For questions or further discussion specific to Canadian Pacific Railway Company, please contact the following:

Name: John Leonardo

Title: GM Wayside Train Control

Email: John\_Leonardo@CPR.ca

Phone: (403) 826 - 5306



## Verification of Modified PTC System

On behalf of Conrail, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



Eric B. Levin

Vice President - Engineering and Mechanical

6-22-23

Date

For questions or further discussion specific to Conrail, please contact the following:

Steven Vant

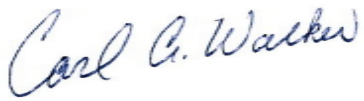
Chief Engineer - C&S

Steven.Vant@Conrail.com

856-231-2035

# Verification of Modified PTC System

On behalf of CSX Transportation, Inc., the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



June 21, 2023

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Carl A. Walker

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Date

Vice President – Engineering

For questions or further discussion specific to CSX Transportation, Inc., please contact the following:

Kate Barney

Director PTC Regulatory Compliance

Email: Kathryn\_Barney@csx.com

Phone: 904-359-4870

# Verification of Modified PTC System

On behalf of Kansas City Southern Railway Company, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



6/20/2023

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NAME: John Leonardo

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Date: 6/20/2023

POSITION: GM Wayside Train Control

For questions or further discussion specific to Kansas City Southern Railway Company, please contact the following:

Name: John Leonardo

Title: GM Wayside Train Control

Email: John\_Leonardo@CPR.ca

Phone: (403) 826 - 5306

# Verification of Modified PTC System

On behalf of Kansas City Terminal Railway Co., the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



Bradley E. Peek



Date

General Manager

For questions or further discussion specific to Kansas City Terminal Railway Co., please contact the following:

Bradley E. Peek

General Manager

[bepeek@kctrailway.com](mailto:bepeek@kctrailway.com)

(816)627-6742

# Verification of Modified PTC System

On behalf of **National Railroad Passenger Corporation (Amtrak)**, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.

*Joseph Sanfilippo*

6/26/2023

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Joseph E. Sanfilippo

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Date

Acting Deputy Chief Engineer

*Joseph Serfess*

6/26/2023

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Joseph Serfess

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Date

PTC Director

For questions or further discussion specific to Amtrak please contact the following:

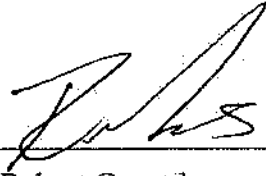
Kelley Carr

Sr. Manager, Locomotive Operations Safety

Kelley.Carr@amtrak.com

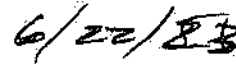
# Verification of Modified PTC System

On behalf of New Mexico Rail Runner Express, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



Robert Gonzales

Director of Operations



Date

For questions or further discussion specific to New Mexico Rail Runner Express, please contact the following:

Stephanie Byrd

Project Manager

sbyrd@herzog.com

817-296-0039

# Verification of Modified PTC System

On behalf of Norfolk Southern, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.

A handwritten signature in black ink, appearing to read "Stephen Hawkins", is written over a horizontal line.

NAME

June 21<sup>st</sup>, 2023

Date

Director, ATC Systems and Operations

For questions or further discussion specific to Norfolk Southern, please contact the following:

Stephen Hawkins

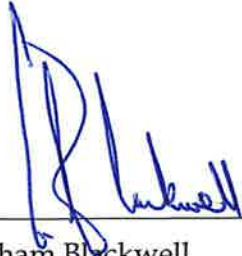
Director ATC Systems and Operations

[stephen.hawkins@nscorp.com](mailto:stephen.hawkins@nscorp.com)

(770)668-4707

# Verification of Modified PTC System

On behalf of North County Transit District (NCTD), the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



Graham Blackwell

6/21/23

Date

Chief Operations Officer - Rail

For questions or further discussion specific to NCTD, please contact the following:

Ryan Cashin

Chief Technology Officer


[rcashin@nctd.org](mailto:rcashin@nctd.org)

(760) 966-6554



# Verification of Modified PTC System

On behalf of North County Transit District (NCTD), the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.

  
\_\_\_\_\_  
Ryan Cashin

Chief Technology Officer

6/22/23  
\_\_\_\_\_  
Date

For questions or further discussion specific to NCTD, please contact the following:

Ryan Cashin

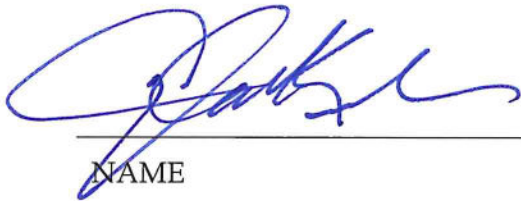
Chief Technology Officer

[rcashin@nctd.org](mailto:rcashin@nctd.org)

(760) 966-6554

# Verification of Modified PTC System

On behalf of Metra, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



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NAME

Christopher M. Krakar  
Chief Engineering Officer

6.21.23

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Date

For questions or further discussion specific to Metra, please contact the following:

Christopher M. Krakar  
Chief Engineering Officer  
CKrakar@METRARR.COM  
312-322-6909

## Verification of Modified PTC System

On behalf of Northern Indiana Commuter Transportation District (NICD) the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.

*Patrick A Guest*

6/16/2023

NAME

Date

CIO

POSITION

For questions or further discussion specific to **NICD**, please contact the following:

Patrick A Guest

CIO

Patrick.guest@nictd.com

(219) 874-4221

# Verification of Modified PTC System

On behalf of South Florida Regional Transportation Authority (SFRV), the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



Aaron Parets

PTC Program Manager

6/21/2023

Date

For questions or further discussion specific to South Florida Regional Transportation Authority (SFRV), please contact the following:

Aaron Parets

PTC Program Manager

[paretsa@sfrta.fl.gov](mailto:paretsa@sfrta.fl.gov)

954-788-7893

# Verification of Modified PTC System

On behalf of Southern California Railroad Authority (Metrolink), the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.

*Frank Castellon*

Frank Castellon

6/16/23

Chief Safety Security & Compliance Officer

*Donald Filippi*

Donald Filippi

6/16/23

Chief Operating Officer

For questions or further discussion specific to Southern California Regional Rail Authority (Metrolink), please contact the following:

Jerone Hurst

Director, Train Control and Communications

hurstj@scrra.net

213-407-4338

# Verification of Modified PTC System

On behalf of Terminal Railroad Association of St. Louis, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



06/21/2023

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Michael Dundas

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Date

Senior Director of Engineering

For questions or further discussion specific to Terminal Railroad Association of St. Louis, please contact the following:

Michael Dundas

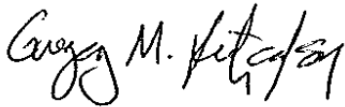
Senior Director of Engineering

mdundas@terminalrailroad.com

618-451-8424

# Verification of Modified PTC System

On behalf of Union Pacific, the signatory below verifies that the modified PTC system, as described in Joint RFA for Mixed System PTCSP, meets all technical requirements under 49 CFR Part 236, Subpart I, provides an equivalent or greater level of safety than the existing PTC system, and does not adversely impact interoperability with any tenant railroads.



6/16/2023

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Gregory Richardson

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Date

General Director – Operating Technologies

For questions or further discussion specific to Union Pacific, please contact the following:

**Gregory M. Richardson**

**General Director – Operating Technologies**

**gmricha1@up.com**

**402-544-1968**