

# Annual PTC Progress Report

# 2015

*NIRC - Northeast Illinois Regional  
Commuter Railroad Corporation (Metra)*

FRA-2016-0012,  
Notice No. 1

The Annual Positive Train Control (PTC) Progress Report is due by March 31<sup>st</sup> of each year until full PTC system implementation is complete. The Annual PTC Progress Report must cover the railroad's implementation efforts and progress from the directly previous calendar year, and must be submitted electronically to the Federal Railroad Administration (FRA) via the FRA Secure Information Repository at <https://sir.fra.dot.gov>.

**Name of Railroad or Entity Subject to 49 U.S.C. § 20157(a):** Northeast Illinois Regional Commuter Railroad Corporation (Metra)

**Railroad Code:** NIRC

**Annual PTC Implementation Progress Report for:** 2015

**PTCIP Version Number of File with FRA (basis for goals stated):** Revision 1, January 26, 2016

**Submission Date:** 3/31/2016

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## 1. Summary

Please provide a narrative summary of overall PTC implementation progress during the preceding calendar year (January 1 to December 31):

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.

2015 highlights of Metra's PTC program include:

- Fully engage program management consultant for PTC (contract executed in 2013).
- On August 6, 2015, issued Notice to Proceed to System Integrator for PTC.
- In August 2015, initiated regular meetings with Metra's PTC team, program management consultant, and system integrator to monitor progress. Technical meetings were started to support the PTC system hardware and software development and also testing, training, and implementation.
- At December 2015 Metra Board Meeting, approved consultant for upgrade of computer-added dispatch system to interface with PTC back office segment.
- In December 2015, LiDAR survey and flymapping were completed to collect data to support development of the track database.
- Initiated hiring process of PTC management staff to support the PTC wayside, on-board and back office segments along with configuration management.

Category	Quantity Installed During Calendar Year	PTCIP Year End Goal (If Applicable)	Cumulative Quantity Installed at End of Calendar Year	Total Quantity Required for PTC Implementation
Locomotives Fully Equipped	0	0	0	530
Installation/Track Segments Completed	0	0	0	9 Subdistricts
Radio Towers Fully Installed and Equipped	0	0	0	219 Wayside Locations 2 Base Stations
Employees Trained	0	0	0	1,737
Route Miles In Testing or Revenue Service Demonstration	0	0	0	206.92
Route Miles in PTC Operation	0	0	0	206.92

## 2. Update on Spectrum Acquisition

Required content:

- The amount of spectrum acquired and available for use during the applicable calendar year and the cumulative amount acquired and available for use at the end of the applicable calendar year, as compared to the amount the railroad stated would be acquired and available for use by the end of that calendar year and in total for PTC implementation, in the applicable revised PTCIP, as amended
- The basis for how the railroad is determining that the acquired spectrum is available for use by PTC radios (e.g., ensuring non-interference with other radios)

Spectrum Area or Location (E.g., county)	Spectrum Acquired and Available for Use (Owned/Leased) During Calendar Year	Cumulative Amount of Spectrum Acquired and Available for Use (Owned/Leased) at End of Calendar Year	PTCIP Year End Goal for Spectrum Acquired and Available for Use	Total Spectrum Required for PTC Implementation, as Reported in PTCIP
<b>Spectrum Coverage Area or Location†: MTA03 - Cook, Lake, Kane, DuPage, Will, McHenry, and Kenosha Counties</b>	<b>550 kHz for testing (cannot be used for full PTC implementation)</b>	<b>2015: Test-Leased Signed</b>	<b>Not Applicable for 2015</b>	<b>(1) Test Lease (2) PTC 220, LLC Full Lease</b>

Please provide any additional narrative for Spectrum Acquisition below:

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.

### 3. Quantity Update on Hardware Installation

Required content:

- Separated by each major hardware category and subcategory identified below, the amount of PTC hardware installed during the applicable calendar year and the cumulative quantity installed at the end of the applicable calendar year, as compared to the amount the railroad stated would be installed by the end of that calendar year and in total for PTC implementation, in the applicable revised PTCIP, as amended

#### 3.1. Locomotive Status

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Locomotive (Apparatus)<sup>1</sup></b>				
On-board Computers (e.g., Train Management Computer)	151	0	313	530
Software For Train Management and other applications	0	0	0	530
PTC Displays	151	0	313	530
Event Recorders	151	0	313	530
Onboard Antennas and/or Transponder Readers	26	0	26	530
GPS Receivers	151	0	313	530
Locomotive Radios – Primary Communications (e.g., 220 MHz radios)	26	0	26	530

<sup>1</sup> Railroads may elect to add categories or subcategories if more detail is desired.

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Secondary Communications (e.g., cell or Wi-Fi communications) Equipment	151	0	313	530

Please provide any additional narrative for Locomotive Status below. If any of the information called for in Section 3.1 is unavailable to the railroad at the time it is completing and submitting this form, please insert "TBD" in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit it to FRA.

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report. Also, the total number of vehicles requiring the installation of PTC has been increases as the result of the purchase of three (3) used F59PH locomotives. Additional locomotive purchases are anticipated in 2016.

Due to the size of the Metra fleet of vehicles Metra began installing a portion of the Wabtec Railway Electronics (WRE) I-ETMS PTC system on its equipment in its own shops without having some of the materials (radios, antennas, software) in January 2014. This installation has been referred to as a Phase 1 installation and included approximately 85 to 90% of the On-Board System (OBS) PTC components. Metra also included the installation of the Phase 1 PTC OBS in the Nippon Sharyo contract for new EMU Cars (160), which began arriving on Metra property in 2013. In 2015, Metra secured the services of a PTC System Integrator (SI); shortly thereafter, the Mechanical Department began working with the SI to review all the Metra designed I-ETMS on-board PTC installations. In mid-2015, Metra was also finalized the OBS design and began purchasing the remainder of the required OBS components (not including software). In October 2015, Metra began installing full OBS component installations incorporating the design change recommendations from the SI. The installation of the additional OBS components is being referred to as Phase 2 Installations. All new installations (locomotives and cab cars) will now be a combination of Phase 1 and Phase 2 installations. Metra will be recalling Phase 1 installations for the addition of the Phase 2 components based on the timing of the implementation of PTC on specific districts. Metra is currently focusing on completing the Phase 2 installations on BNSF-operated Metra equipment based on BNSF's plans to begin testing in Chicago in the second half of 2016. Metra continues to complete full PTC installations on equipment operating on other districts. In December 2015, Metra completed negotiations with WRE for the development and purchase of the necessary software to create a working PTC system. The agreement was approved by the Metra Board of Directors in January 2016. Wabtec has started work on the development of the software that will be loaded into the OBS and will be referred to as Phase 3.

## 3.2. Infrastructure/Back Office Status

Category / Installation Feature	Completed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Complete at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Infrastructure (Back Office)</b>				
<b>Dispatching Locations (installations complete)</b>	1	0	1	1
<b>Physical Back Office System Equipment (installations complete)</b>	0	0	0	2

Are the Back Office Location(s) fully operable?	No
Are the Dispatching Location(s) fully operable?	Yes

Please provide any additional narrative for Infrastructure/Back Office Status below:

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.



## 3.3. Installation/Territory Status

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.)<sup>2</sup></b>				
<b>Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Rock Island District/Joliet Subdistrict</b>				
<b>Wayside Interface Units†</b>	39	0	39	62
<b>Communication Towers or Poles†</b>	0	0	0	39
<b>Switch Position Monitors†</b>	0	0	0	0
<b>Wayside Radios†</b>	0	0	0	39
<b>Base Station Radios†</b>	0	0	0	1
<b>Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† No</b>				

Please provide any additional narrative for Installation/Territory Status below. If any of the information called for in Section 3.3 is unavailable to the railroad at the time it is completing and submitting this form, please insert “TBD” in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit to FRA.

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.

<sup>2</sup> Each railroad should report information in a manner consistent with its PTCIP. That is, if a railroad monitors implementation of track segments by territory or subdivision, it should report that way.

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.)<sup>3</sup></b>				
<b>Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Rock Island District/SouthWest Service</b>				
<b>Wayside Interface Units†</b>	36	0	36	38
<b>Communication Towers or Poles†</b>	0	0	0	30
<b>Switch Position Monitors†</b>	0	0	0	0
<b>Wayside Radios†</b>	0	0	0	30
<b>Base Station Radios†</b>	0	0	0	0
<b>Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† No</b>				

Please provide any additional narrative for Installation/Territory Status below. If any of the information called for in Section 3.3 is unavailable to the railroad at the time it is completing and submitting this form, please insert “TBD” in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit to FRA.

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.

<sup>3</sup> Each railroad should report information in a manner consistent with its PTCIP. That is, if a railroad monitors implementation of track segments by territory or subdivision, it should report that way.

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.)<sup>4</sup></b>				
<b>Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Rock Island District/Beverly Branch</b>				
<b>Wayside Interface Units†</b>	0	0	0	11
<b>Communication Towers or Poles†</b>	0	0	0	7
<b>Switch Position Monitors†</b>	0	0	0	0
<b>Wayside Radios†</b>	0	0	0	7
<b>Base Station Radios†</b>	0	0	0	0
<b>Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† No</b>				

Please provide any additional narrative for Installation/Territory Status below. If any of the information called for in Section 3.3 is unavailable to the railroad at the time it is completing and submitting this form, please insert “TBD” in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit it to FRA.

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<sup>4</sup> Each railroad should report information in a manner consistent with its PTCIP. That is, if a railroad monitors implementation of track segments by territory or subdivision, it should report that way.

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.)<sup>5</sup></b>				
<b>Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Metra Electric District/University Park Subdistrict</b>				
<b>Wayside Interface Units†</b>	89	0	89	111
<b>Communication Towers or Poles†</b>	0	0	0	50
<b>Switch Position Monitors†</b>	0	0	0	0
<b>Wayside Radios†</b>	0	0	0	50
<b>Base Station Radios†</b>	0	0	0	0
<b>Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† No</b>				

Please provide any additional narrative for Installation/Territory Status below. If any of the information called for in Section 3.3 is unavailable to the railroad at the time it is completing and submitting this form, please insert “TBD” in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit it to FRA.

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Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.)<sup>6</sup></b>				
<b>Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Metra Electric District/South Chicago Subdistrict</b>				
<b>Wayside Interface Units†</b>	0	0	0	6
<b>Communication Towers or Poles†</b>	0	0	0	6
<b>Switch Position Monitors†</b>	0	0	0	0
<b>Wayside Radios†</b>	0	0	0	6
<b>Base Station Radios†</b>	0	0	0	0
<b>Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† No</b>				

Please provide any additional narrative for Installation/Territory Status below. If any of the information called for in Section 3.3 is unavailable to the railroad at the time it is completing and submitting this form, please insert “TBD” in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit it to FRA.

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.

<sup>6</sup> Each railroad should report information in a manner consistent with its PTCIP. That is, if a railroad monitors implementation of track segments by territory or subdivision, it should report that way.

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.)<sup>7</sup></b>				
<b>Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Metra Electric District/Blue Island Subdistrict</b>				
<b>Wayside Interface Units†</b>	0	0	0	9
<b>Communication Towers or Poles†</b>	0	0	0	9
<b>Switch Position Monitors†</b>	0	0	0	0
<b>Wayside Radios†</b>	0	0	0	9
<b>Base Station Radios†</b>	0	0	0	0
<b>Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† No</b>				

Please provide any additional narrative for Installation/Territory Status below. If any of the information called for in Section 3.3 is unavailable to the railroad at the time it is completing and submitting this form, please insert “TBD” in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit it to FRA.

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.

<sup>7</sup> Each railroad should report information in a manner consistent with its PTCIP. That is, if a railroad monitors implementation of track segments by territory or subdivision, it should report that way.

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.)<sup>8</sup></b>				
<b>Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Milwaukee District-North/C&amp;M &amp; Fox Lake Subdivisions</b>				
<b>Wayside Interface Units†</b>	17	0	17	47
<b>Communication Towers or Poles†</b>	0	0	0	45
<b>Switch Position Monitors†</b>	0	0	0	0
<b>Wayside Radios†</b>	6	0	6	45
<b>Base Station Radios†</b>	0	0	0	1
<b>Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† No</b>				

Please provide any additional narrative for Installation/Territory Status below. If any of the information called for in Section 3.3 is unavailable to the railroad at the time it is completing and submitting this form, please insert “TBD” in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit it to FRA.

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.

<sup>8</sup> Each railroad should report information in a manner consistent with its PTCIP. That is, if a railroad monitors implementation of track segments by territory or subdivision, it should report that way.

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
<b>Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.)<sup>9</sup></b>				
<b>Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Milwaukee District-West/Elgin Subdivision</b>				
<b>Wayside Interface Units†</b>	35	0	35	51
<b>Communication Towers or Poles†</b>	0	0	0	33
<b>Switch Position Monitors†</b>	0	0	0	0
<b>Wayside Radios†</b>	2	0	2	33
<b>Base Station Radios†</b>	0	0	0	0
<b>Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† No</b>				

Please provide any additional narrative for Installation/Territory Status below. If any of the information called for in Section 3.3 is unavailable to the railroad at the time it is completing and submitting this form, please insert “TBD” in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit it to FRA.

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.

<sup>9</sup> Each railroad should report information in a manner consistent with its PTCIP. That is, if a railroad monitors implementation of track segments by territory or subdivision, it should report that way.



#### 4. Quantity Update on Employees Trained

Required content:

- Separated by each employee category identified below, the number of employees trained during the applicable calendar year and the cumulative number of employees trained at the end of the applicable calendar year, as compared to the number the railroad stated would be trained by the end of that calendar year and in total, in the applicable revised PTCIP, as amended

Employee Category <sup>10</sup>	Number of Employees Trained During Calendar Year	PTCIP Year End Goal	Cumulative Number of Employees Trained at End of Calendar Year	Total Reported in PTCIP
Employees who Install, Maintain, Repair, Modify, Inspect, and Test the PTC System	0	0	0	319
Employees who Dispatch Train Operations	0	0	0	580
Train and Engine (Operations) Employees	0	0	0	385
Roadway Worker Employees	0	0	0	183
Direct Supervisors of the Above Employees	0	0	0	270

Please provide any additional narrative for Employee Training below:

As a result of the extension of the PTC implementation date and release of the revised PTCIP required by the change in the law, there is no valid PTCIP 2015 Year End Goal for this annual report.

The Metra Mechanical Department has not fully trained any employees to “install, maintain, repair, modify, inspect, and test the PTC system”, but has delivered specific training on the Installation of PTC to a total of fifty-five (55) individuals through December 31, 2015: 24 Electricians, 9 Sheet Metal Workers; 4 Machinist and 18 Foreman / Management

At total of fourteen (14) individuals received the training in 2015.

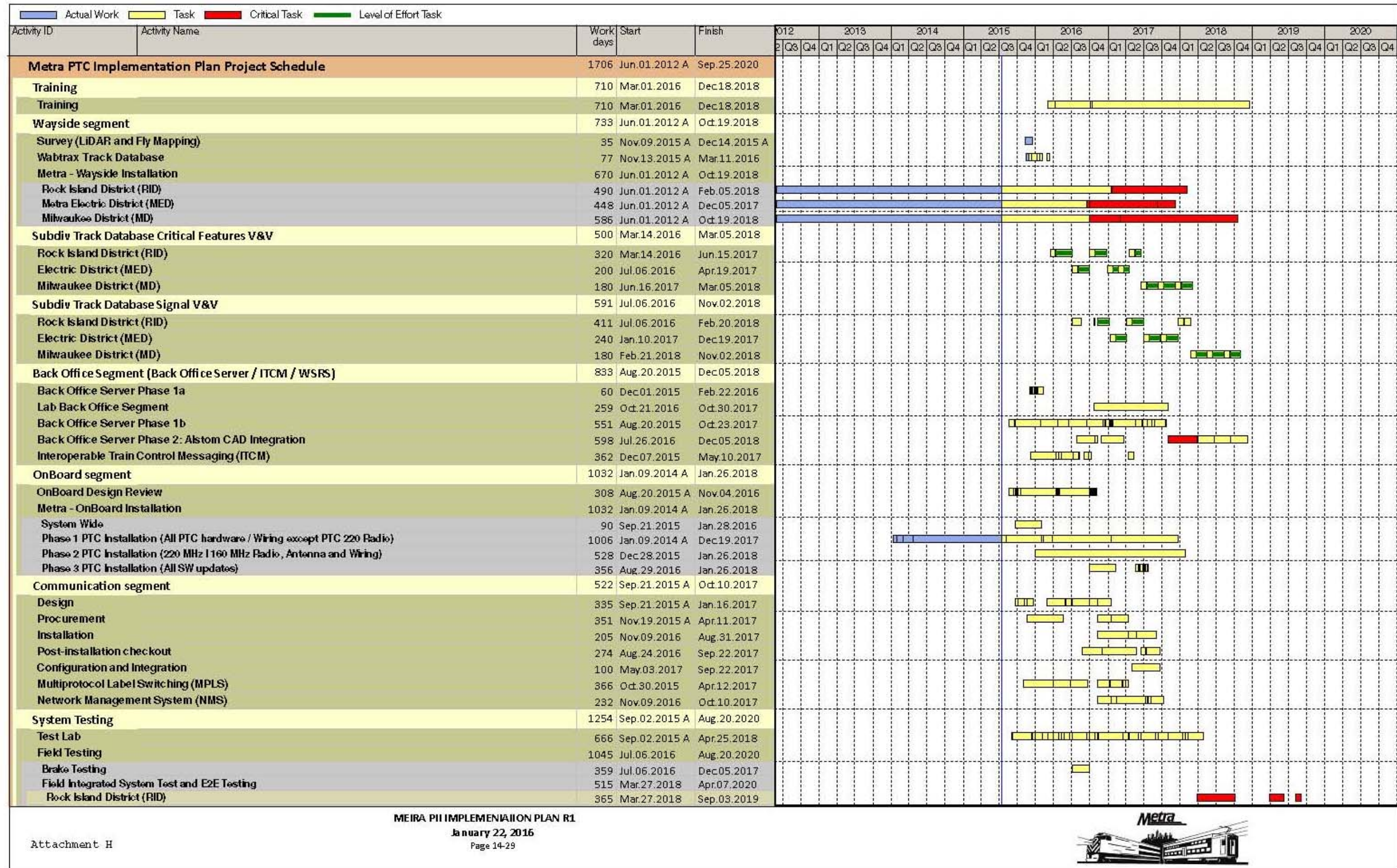
<sup>10</sup> See 49 C.F.R. § 236.1041(a).

5. Progress on Implementation Schedule/Milestones

Required content:

- Describe the extent to which the railroad or other entity is not complying with the implementation schedule it provided in its revised PTCIP, as amended








		Actual Work		Task		Critical Task		Level of Effort Task																													
Activity ID	Activity Name	Work days	Start	Finish	2012	2013				2014				2015				2016				2017				2018				2019				2020			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	Electric District (MED)	210	Oct.05.2018	Aug.05.2019																																	
	Milwaukee District (MD)	150	Sep.04.2019	Apr.07.2020																																	
	Revenue Service Demonstration (PSD) ENTER INTO	356	Nov.09.2018	Apr.08.2020																																	
	Rock Island District (RID)	226	Nov.09.2018	Oct.02.2019																																	
	Joliet Subdivision	1	Nov.09.2018	Nov.09.2018																																	
	Southwest Service Subdivision	1	Jul.12.2019	Jul.12.2019																																	
	Beverly Subdivision	1	Oct.02.2019	Oct.02.2019																																	
	Electric District (MED)	91	Apr.26.2019	Sep.04.2019																																	
	University Park Subdivision	1	Apr.26.2019	Apr.26.2019																																	
	South Chicago Subdivision	1	Sep.04.2019	Sep.04.2019																																	
	Blue Island Subdivision	1	Aug.06.2019	Aug.06.2019																																	
	Milwaukee District (MD)	78	Dec.18.2019	Apr.08.2020																																	
	Elgin Subdivision	1	Dec.18.2019	Dec.18.2019																																	
	C and M Subdivision	1	Feb.27.2020	Feb.27.2020																																	
	Fox Lake Subdivision	1	Apr.08.2020	Apr.08.2020																																	
	Interoperability Testing	305	Jun.10.2019	Aug.20.2020																																	
	PTC Safety Plan (PTC-SP)	1220	Dec.01.2015	Sep.25.2020																																	
	Reliability and Maintainability Analysis (RAMS)	402	Dec.01.2015	Jun.30.2017																																	
	PTC-SP Final	195	Dec.19.2019	Sep.25.2020																																	
SP-041	PTC Safety Plan Final - Submitted to FRA	180	Dec.19.2019	Sep.02.2020																																	
SP-044	FRA Approval of PTC SP Final	0	Sep.25.2020	Sep.25.2020																																	

Attachment I

MEIRA PII IMPLEMENTATION PLAN R1  
January 22, 2016  
Page 14-30



## 6. Summary Update of Challenges/Risks

Required content:

- Any update to the summary of remaining technical, programmatic, operational, or other challenges that the railroad or other entity provided in its revised PTCIP, as amended, including challenges with availability of public funding, interoperability, spectrum, software, permitting, and testing, demonstration, and certification
- Schedule Risk Updates (e.g., funding, technology, agreements)

Please provide Summary Update of Challenges/Risks below:

As presented in 2016 PTCIP revision, the following risks have been identified by Metra:

- 1) **Back Office Server and Dispatch System Availability:** The PTC Back Office Server and Dispatch (TRMS) systems are implemented by different suppliers, and delays in contracting the interface development between the systems have extended the PTC deployment schedule.
- 2) **Railroad Funding Profile for PTC:** The primary programmatic challenges that Metra encountered were lack of necessary funding and higher than anticipated costs associated with contract costs for PTC integration services and PTC onboard and wayside materials. This has resulted in delays in the start of contracted work for deployment. Metra now has the major contracts for PTC integration and deployment in place; however, funding authorizations are pending to cover the value of the contracts.
- 3) **RF Design for Chicago Area (MTA03):** Transportation Technology Center, Inc. (TTCI) has been tasked with providing an overall RF design for the Chicago area to ensure interoperability and shared 220 MHz spectrum use amongst the various railroads. Coordination amongst all the railroads as well as incumbent 220 MHz frequency use continues to be analyzed; a completion date for this effort has not been determined. RF design review and the build-out of any required base stations cannot be performed until this is complete and finalized.

## 7. Progress on Revenue Service Demonstration (RSD) or Implementation

Required content:

- The total number of route miles on which PTC has been initiated for revenue service demonstration or implemented, as compared to the total number of route miles required to have a PTC system (see Section 1 Summary Table)
- Estimated start date (month and year) for RSD

<b>Segment Identification</b> <sup>11</sup>	<b>Number of Route Miles in Segment</b>	<b>Status at End of Calendar Year</b> <i>Current status of installation/track segment. <b>Choose one:</b></i>	<b>Estimated Start Date for Revenue Service Demonstration (if not already completed)</b>
<b>Segment:</b> Rock Island District/Joliet Subdistrict	40.20	<input type="radio"/> Not Started <input checked="" type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete	11/09/2018
<b>Segment:</b> Rock Island District/SouthWest Service	38.60	<input type="radio"/> Not Started <input checked="" type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete	7/12/2019
<b>Segment:</b> Rock Island District/Beverly Branch	6.60	<input checked="" type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete	10/02/2019
<b>Segment:</b> Metra Electric District/University Park Subdistrict	30.33	<input type="radio"/> Not Started <input checked="" type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete	8/26/2019
<b>Segment:</b> Metra Electric District/South Chicago Subdistrict	4.40	<input checked="" type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete	9/04/2019
<b>Segment:</b> Metra Electric District/Blue Island	3.49	<input checked="" type="radio"/> Not Started <input type="radio"/> Installing	8/6/2019

<sup>11</sup> Segment identification should be consistent with segments listed in Section 3.3.

Segment Identification <sup>11</sup>	Number of Route Miles in Segment	Status at End of Calendar Year <i>Current status of installation/track segment. <b>Choose one:</b></i>	Estimated Start Date for Revenue Service Demonstration (if not already completed)
Subdistrict		<input type="radio"/> Testing <input type="radio"/> Operational/Complete	
<b>Segment:</b> Milwaukee District-North/C&M Subdivision	32.00	<input type="radio"/> Not Started <input checked="" type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete	2/27/2020
<b>Segment:</b> Milwaukee District-North/Fox Lake Subdivision	16.50	<input checked="" type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete	8/08/2020
<b>Segment:</b> Milwaukee District-West/Elgin Subdivision	34.80	<input type="radio"/> Not Started <input checked="" type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete	12/18/2019

Please provide any additional narrative for Revenue Service Demonstration or Implementation below:

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## 8. Update for Intercity or Commuter Rail Passenger Transportation (if applicable)

If this section is not applicable to your railroad, please mark N/A.

Required content (if applicable):

- For each entity providing regularly scheduled intercity or commuter rail passenger transportation, a description of the resources identified and allocated to implement PTC

Please provide Update for Intercity or Commuter Rail Passenger Transportation below, if applicable:

[Click here to enter text.](#)

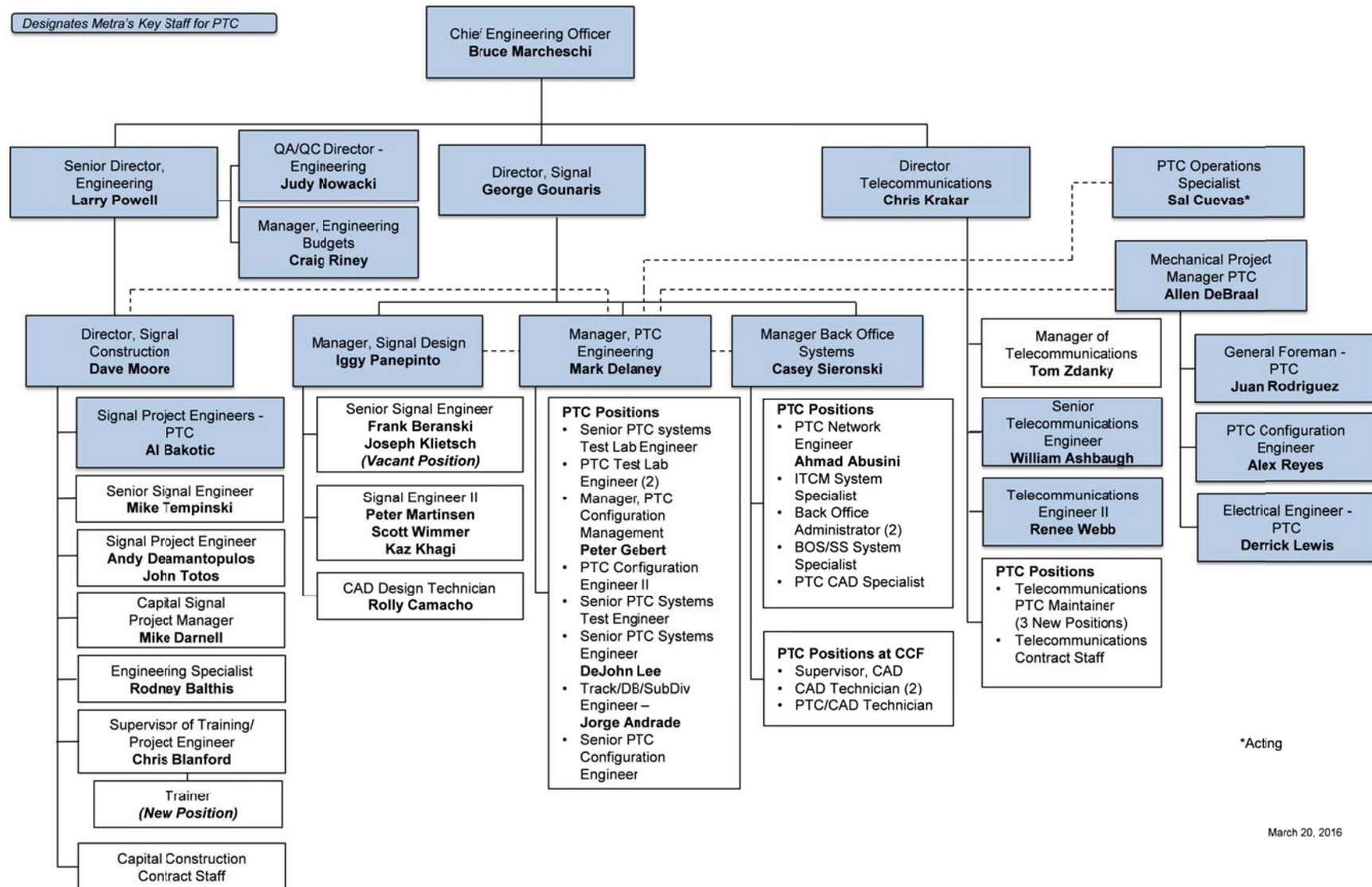
During 2015, Metra worked towards development of a plan and assembling a team of resources for PTC implementation. Activities included:

- Identifying and hiring internal staff to support all segments of the PTC program including engineering, mechanical, operations, dispatch and communications.
- Metra fully engaged PTC program management consultant services (URS Corporation with AECOM Technical Services, LTK Engineering, Rail Pros, Clifton Weiss & Associates, Los Alamos Technical Associates, Gravity Consulting and Ardmore Associates).
- On 8/6/2015, Metra issued a Notice to Proceed for a PTC System Integrator (Parsons Transportation Group with Wabtec/XORAIL, Rail Safety Consulting, Rail Operations, Inc. Cory's Thunder, Raul V. Bravo + Associates, Inc., CivCon Services, Inc., and Kaskaskia Engineering Group, LLC).

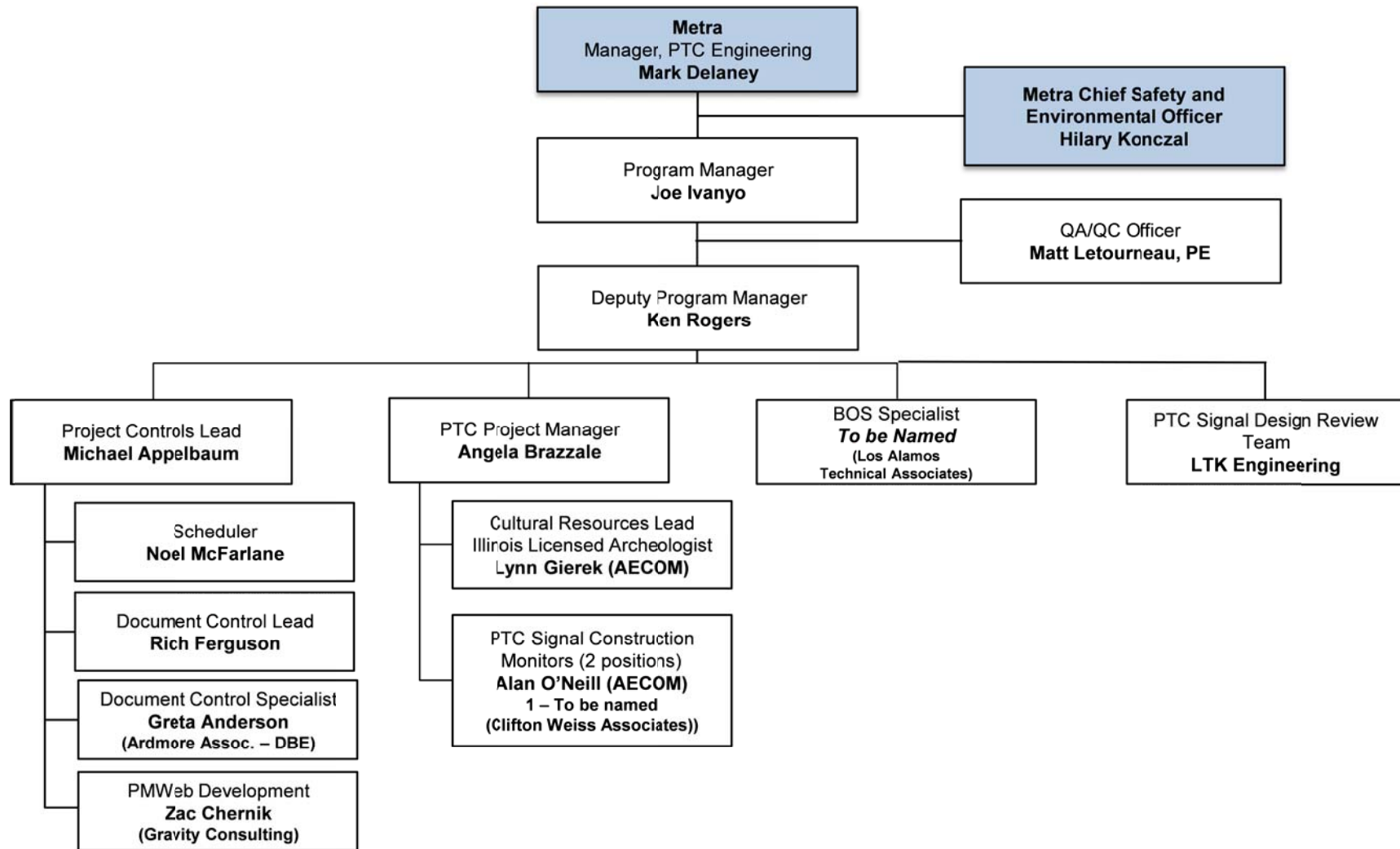
Included in this section are organization charts for Metra's PTC staff, Program Management Consultant and System Integrator.



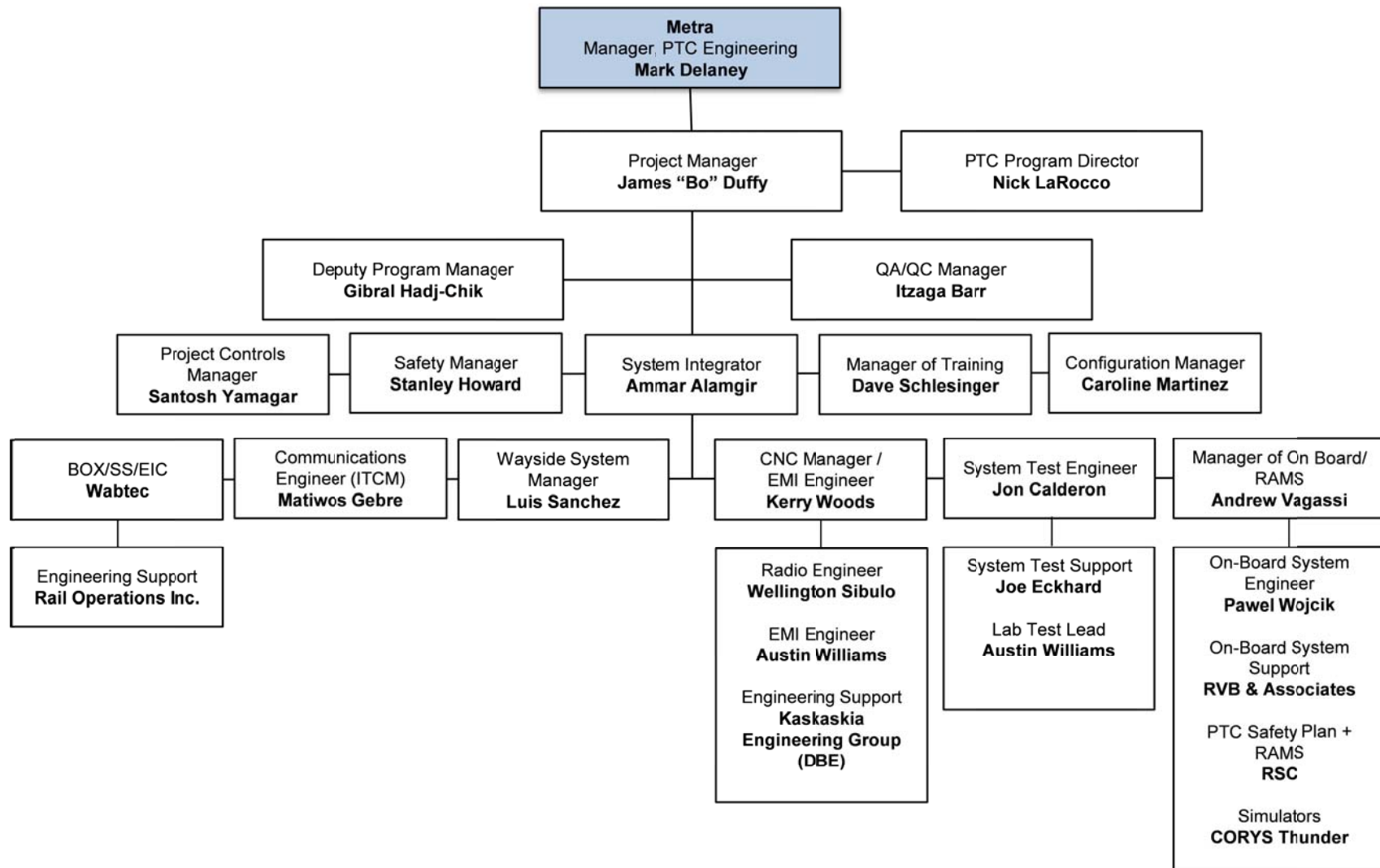
## Metra PTC Organization Chart



## Program Management Consultant Organization Chart



## System Integrator Organization Chart



## 9. Update on Interoperability Progress and Other Formal Agreements

Required content:

- For host railroads: provide updates to any agreements and key milestones for all tenant operations
- For tenant railroads: provide updates to any agreements and key milestones for all operations over tracks hosted by another railroad

**Host and Tenant Railroads:** Please provide a general update on interoperability in the textbox below.

<p>Interoperability</p> <ul style="list-style-type: none"> <li>• <b>Belt Railway Company of Chicago (Host: Milwaukee District-West):</b> Host submitted PTCIP to FRA (2018 completion).</li> <li>• <b>BNSF Railway (Host: Chicago to Aurora):</b> Host submitted PTCIP to FRA (2018 completion).</li> <li>• <b>Indiana Harbor Belt Railroad (Crossing at Chicago Ridge on Rock Island District/SouthWest Service):</b> Metra and Indiana Harbor Belt have a joint facilities agreement covering Metra's crossing of the Indiana Harbor Belt at Chicago Ridge.</li> <li>• <b>National Railroad Passenger Corporation (Host: Chicago Union Station / Tenant: Milwaukee District-North, Rock Island District/Southwest Service):</b> Host/Tenant submitted PTCIP to FRA (2018 completion)</li> <li>• <b>Union Pacific (Host: Union Pacific-North, Union Pacific-Northwest, and Union Pacific-West lines):</b> Host submitted PTCIP to FRA (2018 completion).</li> </ul>
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**Host Railroads Only:** For each tenant, please provide additional tenant information below.

Tenant Identification <i>(Please add rows for additional tenants as necessary)</i>	Estimated Tenant Locomotive Fleet <i>(if the tenant does not have a separate PTCIP on file)</i>	Current Tenant Implementation Status <i>Choose one:</i>
Canadian National	Tenant has submitted PTCIP to FRA - 2020 completion.	<input type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete
Canadian Pacific Railway	Tenant has submitted PTCIP to FRA - 2018 completion.	<input type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete
Chicago Rail Link	6 locomotives (2010 Metra discussions with CRL).	<input checked="" type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete

<b>Tenant Identification</b> <i>(Please add rows for additional tenants as necessary)</i>	<b>Estimated Tenant Locomotive Fleet</b> <i>(if the tenant does not have a separate PTCIP on file)</i>	<b>Current Tenant Implementation Status</b> <i>Choose one:</i>
CSX Transportation	Tenant has submitted PTCIP to FRA.	<input type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete
Dakota, Minnesota and Eastern Railroad (owned by Canadian Pacific Railway)	Tenant has submitted PTCIP to FRA.	<input type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete
Iowa Interstate Railroad, Ltd.	8 locomotives (2013 discussion with IAIS)	<input checked="" type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete
Iowa Pacific Holdings	6 locomotives (1/20/16 agreement between IPH and Metra)	<input checked="" type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete
Norfolk Southern Corporation	Tenant has submitted PTCIP to FRA - 2020 completion.	<input type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete
Northern Indiana Commuter Transportation District	Tenant has submitted PTCIP to FRA - 2018 completion.	<input type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete
Wisconsin and Southern Railroad	14 locomotives (2014 Metra discussions with WSOR)	<input checked="" type="radio"/> Not Started <input type="radio"/> Installing <input type="radio"/> Testing <input type="radio"/> Operational/Complete

## 10. Estimated PTC Safety Plan (PTCSP) Submission Date (if not already submitted)

If this section is not applicable to your railroad, please mark N/A.

PTCSP Submission Date
12/19/2019

Please provide any additional narrative for PTCSP Submission below:

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11. Testing and Integration Efforts (if applicable, laboratory, integration, and revenue service demonstration)

Please provide Update on Testing and Integration efforts below:

Metra's PTC test laboratory will be built out and equipment installed in the first half of 2016. The PTC test laboratory is located at Metra's Consolidated Control Facility in Chicago.

## 12. Updated Information That FRA Can Use to Maintain Its Geographic Information System (GIS) Database – Segments Complete and Operable

*In its annual progress reports, a subject railroad or entity may submit a geographic information system (GIS) shapefile to indicate where various rail segments that must have PTC are located, as long as it includes the following fields: (1) a PTC attribute field (coded with “Y” if line segment is to have PTC installed, otherwise left blank); (2) a SUBDIV attribute field (populated with subdivision name); (3) a MONTH attribute field (populated with the month in which PTC is to be installed); and (4) a YEAR attribute field (populated with the year in which PTC is to be installed). A railroad may submit this information by means other than shapefile format.*

Please provide any additional narrative for GIS Information below:

Metra is in the process of building the track database. Information is not available in GIS format for Metra’s PTC program.

Public reporting burden for this information collection is estimated to average 38.41 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for this information collection is **2130-0553**. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection, including suggestions for reducing this burden to OMB’s Office of Information and Regulatory Affairs, Attn: FRA OMB Desk Officer.