

# Diesel Locomotive

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Request for Information

7/6/2012





## **DIESEL LOCOMOTIVE REQUEST FOR INFORMATION**

### **INTRODUCTION AND BACKGROUND**

The PRIIA Section 305 Next Generation Equipment Committee (NGEC) has developed this Request for Information (RFI) to support a multi-state effort for the procurement of a fleet of Next Generation diesel locomotives for intercity corridor services.

FRA has awarded the Illinois Department of Transportation (IDOT) a \$268.2 million grant for the purchase of 48 rail passenger cars and 7 diesel locomotives for the benefit of Illinois and other Midwest States, including Michigan, Missouri, Indiana and Iowa. FRA awarded Illinois two grants; a \$1,142.4 million grant for the Chicago-St. Louis corridor that contained funding for 30 passenger rail cars and 12 diesel locomotives as well as a \$177.3 million Chicago-Quad City corridor grant that contains funding for an estimated 10 passenger rail cars and 2 diesel locomotives. Washington State received a \$751.6 million grant for its Pacific Northwest Rail Program which contains funds for 8 diesel locomotives and one trainset. The Federal Railroad Administration (FRA) has also awarded two grants to Caltrans for a total of \$168 million (matched by \$42 million of state funds) for the purchase of 42 passenger cars and 6 diesel locomotives.

As a result, a total of 35 diesel locomotives are scheduled to be procured through the Request for Proposals (with option assignments and quantity to be determined). The new locomotives will incorporate numerous design improvements and innovations, making the States' rail passenger service more efficient, cost-effective and attractive to passengers.

### **JOINT PROCUREMENT**

Consistent with the FRA goals for the High-Speed and Intercity Passenger Rail (HSIPR) program, Caltrans, IDOT and WSDOT intend to enter into an agreement to facilitate a single joint procurement for the locomotives to ensure the best price and terms as well as interchangeability of equipment.

### **PRIIA SECTION 305 TECHNICAL SPECIFICATIONS**

The Passenger Rail Investment and Improvement Act of 2008 (PRIIA) requires the establishment of:

*"...a Next Generation Corridor Equipment Pool Committee, comprised of representatives of Amtrak, the Federal Railroad Administration, host freight railroad companies, passenger railroad equipment manufacturers, interested States, and, as appropriate, other passenger railroad*



*operators. The purpose of the Committee shall be to design, develop specifications for, and procure standardized next-generation corridor equipment.”*

As part of its work the Next Generation Equipment Committee (NGEC) has established the technical specification for the diesel locomotives which will be used for the planned procurement.

At its September 15, 2011 meeting, the NGEC Executive Board made the decision stated below:

*“The Section 305 Next Generation Equipment Committee (NGEC) will utilize the RFI process to assess the capability of the industry to deliver locomotives in full compliance with spec #305-005 and with sustained operating speeds up to 125 mph.”*

This RFI is in response to the above decision and will support the Request for Proposal (RFP) and the joint procurement.

## **RFP SCHEDULE**

The tentative release date for the anticipated Request for Proposals (RFP) is August 2012. The tentative Notice to Proceed (NTP) date is late 2012 to early 2013. At least 31 diesel locomotives must be delivered and paid for no later than September 30, 2017 or the funding available for the procurement of the locomotives will lapse.

To allow time for manufacture, the anticipated RFP schedule is:

- RFP released – Late August 2012
- Draft Proposals Due – Early October 2012
- Final Proposals Due – Late November 2012
- Award of Contract and NTP – December 2012/January 2013

## **OBJECTIVE OF THE RFI**

This RFI provides the opportunity for manufacturers to assist the NGEC in gathering select technical information for a supplying next generation diesel locomotives.



Responses to this RFI will not be used to qualify proposers under the RFP, nor are they a pre-condition to responding to the RFP.

The objectives of this RFI are to:

1. Gather information on the current diesel locomotive manufacturing industry's capability to design, build and deliver a diesel locomotive that meets the #305-005 specification
2. Receive feedback from diesel locomotive manufacturing industry on the above outlined procurement schedule
3. Receive feedback from diesel locomotive manufacturing industry on proposed Buy America requirements
4. Receive feedback from diesel locomotive manufacturing industry on proposed equipment Standardization requirements

## **CONTENT OF THIS RFI**

This RFI has four attachments:

1. Questions on the current diesel locomotive manufacturing industry's capability to design, build, and deliver a diesel locomotive that meets the #305-005 specification
2. Request for feedback on preliminary procurement schedule
3. Proposed language for Buy America requirements for the diesel locomotive procurement and request for feedback from diesel locomotive manufacturing industry
4. Proposed language for Equipment Standardization requirements for the diesel locomotive procurement and request for feedback from diesel locomotive manufacturing industry

## **KEY RFI ACTION DATES**

Release of the RFI: July 6, 2012

RFI Responses Due: July 20, 2012

## **RFI QUESTIONS**

Should you have any questions about completing the requests or this project's objectives, please submit written questions to Steven Hewitt at [shewitt109@aol.com](mailto:shewitt109@aol.com).



## **RESPONDENT'S COST**

Neither the NGEC nor its members will be responsible for any costs or expenses incurred in preparing and submitting information in response to this RFI. The cost of preparing and submitting a response to this request is the responsibility of each respondent and shall not be chargeable to the NGEC, its members, the Federal Government, or any other public agency. Interested parties are not required to submit a response to this RFI in order to participate in the solicitation process. Additionally, the NGEC does not guarantee that an RFP will be issued.

## **RFI RESULTS AND CONFIDENTIALITY**

It is the intention of the NGEC to use feedback as appropriate to make suggestions and recommendations prior to the release of an RFP. This RFI will be managed by the NGEC's Joint Procurement Task Force (JPTF) whose members have all signed confidentiality agreements.

All material submitted will be held confidentially within the JPTF of the NGEC. Submitters are cautioned to clearly label as proprietary and confidential any specific information or other material that is considered to be confidential. All information submitted to Steven Hewitt shall be made anonymous so that any company information is not disclosed. He will forward the consolidated responses to the JPTF.

Our intent is to use input gathered during the RFI process to refine the RFP and benefit from industry input. NGEC does not intend to publish the results of this RFI in detailed form, but the JPTF may make recommendations to the Executive Board that may impact the diesel locomotive Requirements Document provided to the NGEC Technical Subcommittee as an outcome of the RFI process and communicate its summary analysis in published form.

NGEC does not intend to publish the results of this RFI; however, information contained in consolidated responses may be subject to the provisions of the Freedom of Information Act, 5 U.S.C. 551 et seq. and applicable Public Records Acts of the member states of the JPTF who receive the consolidated responses.

Interested parties are requested to complete Attachments A, B, C, and D and submit them via e-mail no later than 5:00 PM (EST) July 20, 2012 to Steven Hewitt.

Email: [shewitt109@aol.com](mailto:shewitt109@aol.com)

Telephone: (845) 616 3076

### **Attachments:**

Attachment A: Industry Capability

Attachment B: Preliminary RFP Schedule

Attachment C: Buy America Requirements



Attachment D: Equipment Standardization Requirements



## **ATTACHMENT A: Industry Capability**

### **SECTION I: Locomotive Procurement Related Questions**

#### **Background:**

The PRIIA Section 305 Next Generation Equipment Committee (NGEC) has a specification for next generation diesel locomotives ([#305-005](#))<sup>1</sup> that was developed with contributions from NGEC members as well as the public and private industry stakeholders, including locomotive manufacturers.

These next generation diesel locomotives are intended to significantly enhance and transform the intercity passenger rail industry by providing a passenger-friendly transportation option that is travel time competitive, environmentally responsible, and cost efficient. Consequently, the locomotives need to:

1. Have high acceleration and deceleration capability
2. Achieve and maintain high top and average speeds
3. Be fuel efficient and meet the latest emission standards at all operating speeds
4. Achieve low P2 forces at all operating speeds to reduce damage and wear and tear of the rail infrastructure
5. Have low life cycle cost with reasonable service life/overhaul expectations
6. Achieve Crash Energy Management standards as prescribed in the specification

The #305-005 specification will be used in the design, development, and manufacture of the 35 next generation intercity passenger rail locomotives planned to be procured by Illinois/Midwest Coalition, California, and Washington.

The #305-005 specification will be used in the design, development, and manufacture of the 35 next generation intercity passenger rail locomotives planned to be procured by the states of California, Illinois, Michigan, and Washington. The procuring states may also plan to request a quantity of option orders to address additional passenger rail service needs, including state corridor and long distance services.

#### **305 NGEC Executive Board Meeting in September 2011**

As decided at the September 2011 Meeting held in Charlotte, NC, the NGEC is utilizing this Request for Information (RFI) to assess the industry's capability to design, develop, and manufacture diesel locomotives that meet the #305-005 specification ("305 compliant"). The

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<sup>1</sup> The locomotive specification #305-005 is currently under revision. An updated version is anticipated to be posted on the AASHTO website in early August, 2012.



NGEC will utilize the responses from this RFI to make recommendations to the agency that will lead the procurement of 35 diesel locomotives (base order) for services in California, Washington State, and the Mid-West.

**Request for Information:**

1. The NGEC requests that you provide the information requested in the table below regarding the potential for your company to produce locomotives that meet the #305-005 specification by the ARRA funding deadline of 9/30/2017, based on the assumption that you would deliver and be fully compensated pursuant to the terms of a contract for at least 31 of the 35 diesel locomotives by 9/30/2017<sup>2</sup>. In the table below we have listed selected key requirements and ask you to indicate whether you can build and deliver locomotives that meet those requirements, or, if you cannot, the steps you would take and the timeline associated with those steps in order to meet the requirements. Your responses in the table below should be provided under the assumption that all requirements are to be achieved with a single locomotive design.
2. If you cannot deliver a locomotive that meets all requirements of the #305-005 specification according to the proposed schedule, please provide a description of the equipment you could provide and indicate which requirements would not be achieved and your plan for eventual upgrade of the equipment to include all requirements.

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<sup>2</sup>31 of the 35 locomotives have ARRA funds as their source of federal funding, and must meet the 9/30/2017 deadline. The remaining locomotives do not have a specific funding deadline.



Selected Requirements in #305-005 Specifications (reference to section and page for #305-005, approved March 16, 2011)	305 Compliant by 9/30/2017? [Yes/No]	If "Yes", when do you expect full 305 compliance?	If "No", describe the gap (technical/performance) to full 305 compliance	If "No", when do you expect to achieve 305 compliance?	What are the main challenges, risks, and barriers to achieve 305 compliance?
1.1. Overall length over coupler pulling faces 72 ft maximum [section 1.4.5, page 11]					
1.2. Traction power sufficient for eight multi-level car train (two locomotives) of 125 mph [section 1.3, page 10] <sup>3</sup>					
1.3. In addition, provide provisional time-to speed and distance-to speed for 125mph (under the parameters mention under 1.2.)					
1.4. Head End Power (HEP) 3-phase 480V 600kW minimum [section 1.3, page 10]					
1.5. Starting tractive effort (minimum) 65,000 lbs [section 1.4.5, page 11]					
1.6. Fuel tank size - US gallons 1,800 gal [section 1.3, page 10]					
1.7. Estimated Range 1,100 to 1,250 miles minimum [section 1.3, page 10]					
1.8. System Mean Distance Between Component Failure [section 3.5.1.2, page 57]					
1.9. Track dynamic (P2) forces shall not exceed 82,000 lbs for a 0.5 degree dip angle and all speeds up to the locomotive					

<sup>3</sup> **Assumed parameters:**

1. Two diesel locomotives, locomotive front based upon design as anticipated in proposal, pulling eight 85-foot smooth-sided bi-level passenger cars weighing 175,000 lbs. each. For details on bi-level cars see: [305-001](#)
2. Track profile: tangent, level Class 7 track
3. No wind, 70 degree
4. 350 kW HEP for entire consist
5. Maintain operating speed of 125mph

Please indicate if one locomotive will provide tractive force while the other will support HEP requirements for the "theoretical consist and performance".



Selected Requirements in #305-005 Specifications (reference to section and page for #305-005, approved March 16, 2011)	305 Compliant by 9/30/2017? [Yes/No]	If "Yes", when do you expect full 305 compliance?	If "No", describe the gap (technical/performance) to full 305 compliance	If "No", when do you expect to achieve 305 compliance?	What are the main challenges, risks, and barriers to achieve 305 compliance?
operating speed limit [section 5.7.3., page 90]					
1.10. Full-service, air-only for a single locomotive ("light locomotive" movement) from 125mph, the stopping distance shall not be more than 9,000 ft [section 7.3.2., page 102]					
1.11. Emergency, air-only for a single locomotive ("light locomotive" movement) from 125mph, the stopping distance shall not be more than 8,000 ft. [section 7.3.2., page 102]					
1.12. System MTTR or Replace Major Module (hours) [section 3.5.5.2., page 61]					
1.13. Incorporate Crash Energy Management (CEM) features [section 6.1.2., page 95]					
1.14. The minimum design service life shall be 25 years Please provide the number of anticipated heavy overhaul cycles required to achieve 25 year service life. Assume 100,000 miles per year. [section 1.4., page 10]					
1.15. US EPA Tier 4 emissions [section 9.3, page 117]					

- Are there other requirements in the #305-005 specification – not mentioned in the above table – that you expect to lead to cost or schedule risk? If so, please address the questions in the table above for each of the relevant requirements. If none are provided, we assume that all other requirements in the #305-005 specifications will be met. Please add any further information that describes your approach to build 35 diesel locomotives



that will be fully 305 compliant by 9/30/2017.

4. If a Notice to Proceed (NTP) were issued by 12/31/2012:
  - a. What is your expected production and delivery schedule for 35 locomotives?
  - b. And if you were provided development funds of \$15 million, how would it impact the process of achieving full 305 compliance for all 35 locomotives? Please describe. *(Note: For this question, assume the development funds would be partially earned (20%) after approval of a 305 compliant locomotive design, and fully earned (remaining 80%) after successful testing of the first prototype locomotive).*

## **SECTION II: Locomotive Market Related Questions**

In the context of looking at the broader market for diesel locomotives for different types of passenger rail services, we anticipate a market potential for over 600 locomotives within the next 10 years. This includes the 280 diesel locomotives identified in Amtrak's latest fleet plan to be replaced within the next 11 years and roughly 300 diesel locomotives currently in service for commuter agencies that are 23 years or older (source: APTA 2010 vehicle database). Additionally, more locomotives may be requested for new commuter and intercity services, as well as for increased frequencies on existing state corridors.

At this point though, we only have knowledge of the funding for the 35 locomotives subject to the planned RFP.

All these services, together with the state corridor routes, will likely operate in different speed categories between 79 mph up to 125 mph. To meet the variety of speed requirements with a locomotive design that follows a standardized approach as much as possible, we ask you for your recommendation regarding an approach to best meet the different market needs.

If your company were to design and build next generation diesel locomotives for a broader market as described above, would you recommend:

- a. Only one design that meets the highest speed requirements that is also suitable to run at lower speeds?
- b. Multiple designs that address lower and higher speed requirements (e.g., one for high speed achieving 125 mph and one for lower speeds)?
- c. One design that is modular in nature and can be customized to the specific power needs?



d. Any other solution?

Please give a detailed description of your recommendation and specifically comment on the six requirements for a next generation diesel locomotive mentioned above in Section I, Background.



**ATTACHMENT B: Anticipated RFP and Procurement Schedule**

Below table shows the anticipated RFP and procurement schedule. If applicable, please comment by filling out the last table column to indicate your estimate of a realistic RFP and procurement schedule.

<u>Action</u>	<u>Preliminary Deadline</u>	<u>Suggested Deadline by Manufacturing Industry</u>
RFP released	Late August 2012	
Draft Proposals Due	Early October 2012	
Final Proposals Due	Late November 2012	
Award of Contract and NTP	December 2012/January 2013	
First Compliant Locomotive Delivered		
31 <sup>st</sup> Locomotive Delivered	September 30, 2017	
Final Locomotive Delivered		

Please provide additional comments on the RFP and procurement schedule:

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## **ATTACHMENT C: Buy America Requirements**

The proposed Buy America language below is written as it might appear in the RFP. Please respond to the questions at the end of this section.

### **Instructions to Proposers – IP: Buy America Certification**

#### **FRA Buy America Requirements:**

This RFP is subject to FRA’s “Buy America” statute at 49 U.S.C. § 24405 (a) (see Code Section at: <http://www.fra.dot.gov/downloads/49USC24405a.pdf>) and applicable FRA guidance (see FRA Buy America Frequently Asked Questions at: <http://www.fra.dot.gov/Pages/11.shtml>). 49 U.S.C. § 24405(a) allows the U.S. Secretary of Transportation to obligate funds for “a project only if the steel, iron, and manufactured goods used in the project are produced in the U.S.” FRA has stated that what constitutes FRA Buy America compliant rolling stock is rolling stock that has undergone final assembly in the U.S. from components that are manufactured in the U.S. FRA has compiled a comprehensive list of items that it considers components of rail rolling stock (see form CER X.7). Proposers must use this form and the appropriate completed and signed certificate (see form CER X.1) to indicate their compliance with Buy America requirements.

While FRA uses some Federal Transit Administration (FTA) Buy America precedent as guidance for FRA grantees, the FTA Buy America requirements do not apply to this RFP. For example, FRA’s Buy America statute does not contain an exception allowing for a waiver from the Buy America requirements, “when ... the cost of components and subcomponents produced in the U.S. is more than 60 percent of the cost of all components of the rolling stock; and ... final assembly of the rolling stock has occurred in the U.S.”

The FRA Buy America requirement has two elements:

1. Final assembly of vehicles must occur in the United States (no waivers will be granted to this requirement), and
2. 100 percent of the components (see list of components in form CER X.7) must be manufactured in the United States (waivers may be granted for this requirement).

However, a Proposal will be deemed compliant with the Buy America requirements in this RFP if:

1. Final assembly of the rail vehicles will occur in the U.S. and **EITHER:**



2. 100 percent of the rail vehicle's components will be manufactured in the U.S. and the Proposer submits a Certificate of Compliance (see form CER X.1) and form CER X.7 documenting the U.S. location of each components' manufacture; **OR**
3. 100 percent of the rail vehicle components cannot be manufactured in the U.S. and the Proposer submits a Certificate of Noncompliance (see form CER X.1) and a form CER X.7 documenting the components that will be manufactured in the U.S. and for components that cannot be manufactured in the U.S. submits documentation sufficient to process and support a waiver from FRA's Buy America requirement (see 49 U.S.C. § 24405(a)(2)).

Where a Certificate of Noncompliance (see form CER X.1) and a waiver request is submitted, the waiver must be approved by FRA before any final contract award can be made. All certifications are subject to audits.

**FRA Buy America Definitions:**

*Final assembly* is the creation of the end product (the diesel locomotives) from individual elements brought together for that purpose through application of manufacturing processes. If a system is being procured as the end product by the grantee, the installation of the system qualifies as final assembly.

*Component* means any article, material, or supply, whether manufactured or unmanufactured, that is directly incorporated into the end product at the final assembly location. A *component* is considered to be manufactured in the U.S. if there are sufficient activities taking place in the U.S. to advance the value or improve the condition of the subcomponents of that component; that is, if the subcomponents have been substantially transformed or merged into a new and functionally different article.

*End product* means a diesel locomotive, which directly incorporates constituent components at the final assembly location, that is acquired for public use under a federally-funded third-party contract, and which is ready to provide its intended end function or use without any further manufacturing or assembly change(s).

*Rolling stock* means transit, passenger and freight rail vehicles such as buses, vans, cars, railcars, locomotives, trolley cars and buses, as well as vehicles used for support services.



*Subcomponent* means any article, material, or supply, whether manufactured or unmanufactured, that is one step removed from a component in the manufacturing process and that is incorporated directly into a component.

*System* means a machine, product, or device, or a combination of such equipment, consisting of individual components, whether separate or interconnected by piping, transmission devices, electrical cables or circuitry, or by other devices, which are intended to contribute together to a clearly defined function. Factors to consider in determining whether a system constitutes an end product include: Whether performance warranties apply to an integrated system (regardless of whether components are separately warranted); whether products perform on an integrated basis with other products in a system, or are operated independently of associated products in the system; or whether transit agencies routinely procure a product separately (other than as replacement or spare parts).

#### **FRA Buy America Certification Requirements:**

Each Proposer shall submit the appropriate Buy America Certification (see form CER X.1) and completed Buy America Worksheet (form CER X.7) with both the Draft Proposals and Final Proposals. Final Proposals that are not accompanied by a properly completed Buy America Certification and Buy America Worksheet will be rejected as nonresponsive.

The two signature blocks on the Buy America Certificate are mutually exclusive. Proposers shall sign **ONLY ONE** signature block on the certificate. Signing both signature blocks will render the Proposal nonresponsive. Making a knowing and willful false certification is a criminal act in violation of 18 U.S.C.§1001.

#### **FRA Non-Compliance Certification and Waiver Process:**

Final assembly must occur in the U.S. No waiver of this requirement will be granted and a Proposal containing such a request for waiver will be rejected. A waiver from the FRA Buy America provisions regarding the requirement that 100 percent of components must be of U.S. origin may be granted only if the FRA determines one of the following to be true:

- Applying the requirement would be inconsistent with the public interest;
- The required component(s) are not produced in the U.S. in a sufficient and reasonably available amount or are not of a satisfactory quality;
- Including the required component(s) would cause the rolling stock or power train equipment to not be bought and delivered in the U.S. within a reasonable time; and/or



- Including the domestic component(s) will increase the cost of the overall project by more than 25 percent. *[Note: In order to meet the 25% threshold for the application of a cost differential waiver, the cost of a single domestic component must increase the cost of the contract for the entire 35 locomotive order by more than 25%]*

(See 49 U.S.C. § 24405(a)(2))

The FRA may grant a waiver for a class of goods. In such a case, the FRA will inform LEAD AGENCY of the waiver(s) granted, and LEAD AGENCY will make this information available to Proposers in RFP addenda. Except where a waiver for a class of goods may have been granted, the Proposer must obtain a waiver from the FRA Buy America requirement for all non-compliant component(s) before contract award. Waivers will not be liberally granted. In the instance where a waiver is granted, it would be non-precedential and apply only to the party and procurement referenced in the particular waiver. At minimum, a Proposer's written waiver request justification should contain:

- Identification and description of the project;
- Description of the component not meeting the FRA Buy America requirement;
- Description of the efforts made to secure the component(s);
- Description of the process used to find U.S. suppliers of component(s) for which a waiver is being requested;
- Description of a process that shows a commitment to finding and/or developing U.S. suppliers in future procurements;
- Cost differential(s) expressed as a percentage of added costs in order to secure domestic component(s) as compared with nondomestic component(s);
- Problems with quality or quantity of compliant component(s);
- Problems with timely delivery of compliant component(s);
- Citation to the specific 49 U.S.C. § 24405(a)(2) waiver category(ies) under which the waiver is sought;
- Justification supporting the application of the waiver category(ies) cited; and
- Contact information for the responsible party.

The Proposer is required to submit a waiver request with its written justification for that waiver together with its Certificate of Non-Compliance as part of both Draft and Final Proposals. To the extent possible, a Proposer will submit only one waiver request containing all of the components for which a waiver is being requested. In addition, Proposers will clearly identify the justification information related to each component for which a waiver is being requested. As part of the Draft Proposal submittals, LEAD AGENCY will provide FRA with all waiver requests submitted by Proposers without identifying the Proposer that submitted each waiver request. Buy America documentation, includes:



- Completed Buy America Worksheet (form CER X.7)
- Completed and Signed Buy America Certification (form CER X.1)
- Completed and signed Buy America Component Supplier Certification forms (CER X.8)(one for each supplier)
- Any Buy America Waiver Requests and Justifications

The FRA will review waiver documentation and identify potential issues or problems, which will be forwarded to LEAD AGENCY for discussion with the Proposer during Confidential Discussions. Waiver Requests will not be processed during the Draft Proposal phase; only an initial review will be conducted. The FRA may request cost information from Proposers submitting waiver requests due to cost differentials. Such cost information would be submitted **only with Final Proposals** and must be included in a sealed bid in Proposal Package 3: Price Proposal Requirements (see IP XXX). Waiver documentation review by LEAD AGENCY or FRA does not guarantee the waiver request will be granted.

In the Final Proposal phase, LEAD AGENCY will provide the FRA with each Proposer's Buy America documentation. The FRA will review each Proposer's Buy America documentation and provide LEAD AGENCY with feedback for each Proposal and/or recommendations and reasons for approving or denying the waiver request. If FRA denies the waiver request in the Final Proposal, the Proposal will be rejected as noncompliant.

#### **IP 9.1: Buy America Pre-Award and Post-Delivery Audits**

LEAD AGENCY is required to conduct pre-award and post-delivery audits verifying compliance with Buy America provisions.

The pre-award audit is required before LEAD AGENCY enters into a formal contract with a Proposer. The pre-award audit will include an inspection of the facility where final assembly is to occur, an inspection of documentation provided by Proposer detailing the assembly activities that will occur at this facility, procurement documentation, and an inspection of all Buy America Certification Forms (CER X.8) provided by suppliers for all included components as listed on the Buy America Worksheet (form CER X.7). All Buy America Certification Forms submitted by component suppliers shall be signed and dated by the responsible official having knowledge of the origin of manufacture for the particular component(s).

The post-delivery audit of the first serial production locomotive must be completed before its title is transferred to LEAD AGENCY/IDOT/WSDOT, whichever is applicable. Follow-on post-delivery audits may be conducted at Caltrans', IDOT's, or WSDOT's discretion, or at FRA's request.



The post-delivery audit will include an inspection of the final assembly location, on-site inspection of the final assembly process at that facility, and on-site verification that each component assembled into the locomotive has a manufacture origin within U.S. or that a waiver has been granted by FRA for that component.

The Contractor will be required to provide information of sufficient detail and/or give an auditor access to the manufacture or assembly location to allow an auditor to determine that the rail vehicle underwent final assembly in the U.S. and that the components were manufactured in the U.S. The Contractor must agree to provide the information requested by LEAD AGENCY to allow LEAD AGENCY or its representative to complete all audits. Caltrans, IDOT, or WSDOT may not accept vehicles if the post-delivery audit cannot be completed to verify the Contractor's compliance with the Buy America requirements regarding final assembly in the U.S. and 100 percent U.S. content on the component level or that a waiver has been granted where 100 percent U.S. manufactured component compliance cannot be achieved. Information provided will be kept confidential to the extent allowed by Federal and State laws.

### **IP 9.2: Domestic Content on Component Level**

To support and encourage domestic manufacturing of the offered vehicles and their components, this RFP will utilize among its evaluation criteria (consistent with applicable procurement practices and FRA guidance) as shown in the Buy America Worksheet (form CER X.7)<sup>4</sup> to evaluate domestically manufactured components offered in Proposals. Toward this end, the Proposer should submit form CER X.7 documenting all component parts of the rolling stock offered in the Proposal, identifying for each component if it will be manufactured in the United States. The domestic content will be determined by the total weighted rating of the components identified as being manufactured domestically. The Proposer's assertion regarding foreign and domestic components is subject to audit.

Proposers are encouraged to take actions to explore the further development of a domestic supply base for diesel locomotive manufacturing. Proposers are encouraged to undertake good faith efforts to support the work of Caltrans, IDOT, WSDOT, FRA, and the Department of Commerce's National Institute of Standards and Technology's Manufacturing Extension Partnership (NIST-MEP).

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<sup>4</sup> At this point the methodology for evaluating Domestic Content has not been finalized. Thus, the Buy America Worksheet does not contain any evaluation specific information.



### Certification – CER X.1: Buy America Certificate of Compliance or Non-Compliance

The two signature blocks on the Buy America Certificate are mutually exclusive. Proposers shall **SIGN ONLY ONE SIGNATURE BLOCK** on the certificate. Signing both signature blocks will render the Proposal nonresponsive. Making a knowing and willful false certification is a criminal act in violation of 18 U.S.C. §1001

#### Certificate of Compliance

The Proposer hereby certifies that it will comply with the FRA Buy America requirements of 49 U.S.C. Section 24405(a)(1). Please check the items below to verify compliance with Buy America requirements: Final Assembly of Locomotives will be in the U.S.

Please indicate Assembly Location: \_\_\_\_\_

100 % of Locomotive's components listed in the Buy America Worksheet (form CER X.7) will be manufactured in the U.S.

**Name and title:**

**Company:**

\_\_\_\_\_  
Authorized Signature Date

#### Certificate of Noncompliance

The Proposer hereby certifies that it cannot comply with the requirements of 49 U.S.C. Section 24405(a)(1), but it may qualify for a waiver from the requirement pursuant to 49 U.S.C. Section 24405(a)(2). The Proposer also certifies that it has attached evidence it believes would qualify it for a waiver from Section 24405(a)(1) for one or more of the reasons set forth in Section 24405(a)(2). Please check the items below as applicable:

Final Assembly of Locomotives will be in the U.S.

Please indicate Assembly Location: \_\_\_\_\_

100 % of the Locomotive's components listed in the Buy America Worksheet (form CER X.7) will not be manufactured in the U.S. – Waiver Request attached

**Name and title:**

**Company:**

\_\_\_\_\_  
Authorized Signature Date

### CER X.7: Buy America Worksheet

**See separate file: Buy America Diesel Locomotive Component List\_FINAL RFI.xlsx** This list represents a draft version that is subject to change until the RFP release.



**CER X.8: Buy America Component Supplier Certification Form**

**Buy America Component Supplier Certification Form**  
 Proposer's Company Name: \_\_\_\_\_  
 Component Supplier Company Name: \_\_\_\_\_  
 Component Supplier Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 The above named supplier hereby certifies that all components listed in the table below are manufactured in the United States.<sup>1</sup>

Component No. (Reference to CER X.7)	Name of Component	U.S. Location of Manufacturing (Street Address, City, State)

Authorizing Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name: \_\_\_\_\_ Title: \_\_\_\_\_

<sup>1</sup>The FRA Buy America statute at 49 U.S.C. § 24405 (a) applies. See also applicable FRA Buy America Frequently Asked Questions Nos. 5 and 6, at: <http://www.fra.dot.gov/Pages/11.shtml>) (A *component* is considered to be manufactured in the U.S. if there are sufficient activities taking place in the U.S. to advance the value or improve the condition of the subcomponents of that component; that is, if the subcomponents have been substantially transformed or merged into a new and functionally different article).

**Federal Clauses – FC 12. Buy America**

Contractor agrees to comply with the Buy America provisions set forth in 49 U.S.C. § 24405(a) and any FRA Guidance on Buy America (available at <http://www.fra.dot.gov/Pages/251.shtml>), with respect to the use of steel, iron, and manufactured goods produced in the United States, subject to the conditions set forth therein. See IP “Buy America Certification,” for additional information.



Please comment on the suggested Buy America requirements for the diesel locomotive procurement as outlined above:

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Please specifically comment on the Buy America component list CER X.7 (see separate file) and indicate if components should be eliminated from or added to the list. Also, please add any comment if these components, to your current knowledge, can only be supplied by non-U.S. suppliers.

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## **ATTACHMENT D: Equipment Standardization Requirements**

The Proposed Equipment Standardization language is written as it might appear in the RFP. Please respond to the questions at the end of this section.

### **General Conditions – GC 2.1 Standardization**

The Next Generation Equipment Committee, led by Amtrak, U.S. DOT and Member States is charged with supporting the development of specifications for the next generation of passenger rail equipment and establishing processes for stewardship of the fleet throughout its lifecycle. The Committee and its core membership has recognized the value of standardization within the next generation fleet for purposes of interoperability, interchangeability, management of lifecycle costs, improved safety and to help re-establish the domestic supply chain for passenger rail rolling stock. To that end, each Proposer must submit a Standardization Plan for standardization of interfaces for high dollar vehicle systems and major high usage components. The Standardization Plan shall include the Standardization Table (Appendix X) and all necessary supporting documentation, which shall be attached.

In developing the Plan, the Proposer's approach should utilize the current NGEC diesel locomotive specification #305-005, program management and design review requirements to incorporate a modular approach to defining the volume or space requirements for major systems or components, including weight limitations. This process will also define the key interface definitions to provide for form, fit and function of all electrical, data, mechanical, pneumatic, fluid and other appropriate interfaces within the defined space/performance requirements. The high usage components, procured independent of a system, can be readily identified to comply with industry standards and regulations, such as APTA, SAE, ANSI, ASHRAE, AWS, IEEE, and ISO. These components are in the category of consumables or items with high replacement rate due to normal wear and tear or damage potential. The Proposer's Standardization Plan should identify and include, but not be limited to, recommendations for standardization of such high usage items as listed in the Standardization Table (Appendix X).

If a Proposer proposes not to recommend items contained in the Standardization Table (Appendix X) for standardization, the rationale for not including them shall be documented in the space provided in the table.

The Proposer's Standardization Plan should cross reference details that apply from Technical Specification Section X.x, Project Management Overview that requires component assemblies



and subsystems provided on the first build lot of locomotives under this specification to be designed so as to facilitate the exchange and substitution of alternative components for form, fit and function. Final decisions on subsystem, assembly or component level for interchange will be determined by Caltrans, IDOT, and WSDOT.

The Proposer's Standardization Plan shall be consistent with all Technical Specification requirements, and shall be appropriately integrated into the engineering plan for accomplishing the engineering design functions and objectives as part of the Section X.x Design Review CDRL requirements. Safety, reliability, ease of maintenance and compatibility/interchangeability with other locomotives shall be a primary design consideration. The Standardization Plan shall be incorporated into the Project Management Plan and standardization candidate systems and components shall also be incorporated into the configuration management plan.

Caltrans, IDOT, and WSDOT will be involved in the design review process as it relates to the development, evaluation and approval of the Proposer's standardization plan during project execution. This will include, but not be limited to, the approval of systems and components for standardization both at the Conceptual Design Phase (10%) and at the Preliminary Engineering Design Phase (30%) design review.

Each step in the design phase, development, construction, delivery and acceptance of the first locomotive shall include a review of the standardization plan and the progress made towards successful implementation. Documentation sufficient for the future application of each proposed standard, which is successfully progressed through to the approved final design, shall be delivered to Caltrans/IDOT/WSDOT per contract requirements along with written documentation of the right to use it in future acquisitions of vehicles, components of vehicles or spare parts by Caltrans, IDOT, WSDOT or their assignees for use in the United States. All updates and proposed revisions to the Proposer's Standardization Plan are contract deliverables and shall be submitted for approval by Caltrans/IDOT/WSDOT at each stage of design review, and progress in implementing the Plan shall be reviewed and approved by Caltrans/IDOT/WSDOT following each phase of design review.

### **Instructions for completing Standardization Table**

Column Instructions:

- 1 Please check "Yes" or "No" whether or not the Component or System/Interface is being proposed for Standardization.
- 2 Please check all boxes that apply regarding the reasoning for standardizing. Add and define any "Other" reasons for Standardization not included in the selections.



- 3 Please check “Yes” or “No” if more than one supplier is anticipated for the standardized component, system, or interface.
- 4 Please check “Yes” or “No” if Proposer agrees to allow the standardized component, system, or interface to be used in future locomotive procurements?
- 5 Please describe at which points in the design review process that Proposer expects the Standardization Plan to be updated.
- 6 Please provide Proposer’s methodology for establishing standardization of the component, system, or interface during the design phases.
- 7 If the response to Column 1 was “No,” please explain the reasoning for not proposing Standardization of the component, system, or interface.

**Appendix X:**

**See separate file: Standardization\_Plan\_Table\_Loco FINAL\_RFI.xlsx.** This list represents a draft version that is subject to change until the RFP release.

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Please comment on the suggested Equipment Standardization requirements for the diesel locomotive procurement:

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Please specifically comment on the Standardization table and indicate if components/systems/interfaces should be eliminated from or added to the list. Please add any other relevant comments.

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