

September 16, 2016

Ms. Sarah Feinberg  
Administrator  
Federal Railroad Administration  
U.S. Department of Transportation  
1200 New Jersey Avenue, S.E.  
Washington, D.C. 20590

**This waiver request was withdrawn  
November 18, 2016. Please see [http://  
www.fra.dot.gov/eLib/Details/L18431](http://www.fra.dot.gov/eLib/Details/L18431) for  
more details.**

Re: Request from the California High-Speed Rail Authority ("Authority") for a Waiver from the Federal Railroad Administration's ("FRA") Buy America Requirements

Dear Administrator Feinberg:

The California High-Speed Rail Authority (the "Authority") intends to release a Request for Proposal ("RFP") for the procurement of Tier III High-Speed Rail Trains and Other Related Goods and Services (RFP HSR 14-30). The release of this RFP could be as early as 2016. In accordance with the Buy America provisions defined in the solicitation documents, the Authority hereby requests a waiver from the Federal Railroad Administration ("FRA") regarding the Buy America requirements contained in 49 U.S.C. 24405(a). The Authority is hereby applying for a waiver to permit the manufacturer of the Authority's new Tier III High-Speed Trains ("Authority's Trains") to purchase and incorporate into the Authority's Trainsets certain components that are not manufactured in the United States. Specifically, these components are for A – Car Body Shell: (1) car body shells (shell structure/frame-end, floor, roof, side); (2) integrated cab/CEM structure; (3) vehicle paintwork; and B - Brake System: (4) brake control unit; (5) disc brake equipment; (6) tread brake equipment/tread cleaners; (7) brake valves and (8) parking brake units. We are also requesting FRA's concurrence that the steel comprising the components for which Buy America waivers have been granted does not have to be sourced in the United States.

The list of components subject to this waiver request is the same as the list of components for which FRA granted a waiver to Amtrak on November 6, 2015, with further clarification provided to Amtrak by FRA on January 15, 2016. FRA concluded that none of the NIST-MEP-identified suppliers could design, manufacture, test, and deliver the cited components to meet Amtrak's FRA-supported timeline, which means that they could not deliver the components within a reasonable time. FRA also advised that the steel comprising the components for which Buy America waivers have been granted does not have to be sourced in the United States. The Authority is seeking a comparable waiver from FRA for its use during the procurement of the Authority's Trainsets.

The Authority has a statutory mandate to plan, build, and operate a HSR system in California. This system will be the first of its kind in the U.S. to accommodate 220 mph revenue speeds, and will leverage the latest technologies available for HSR. The Authority's network will include new infrastructure, new core systems, and new facilities and will require inspection, testing, operation, and maintenance protocols at levels that match or exceed those used for overseas HSR operations today. Enhancement of the overall network reliability and safety will be accomplished through the use of high-quality, service-proven HSR equipment that has been modified to meet both the FRA requirements and the Authority requirements. This includes the trainsets and its respective systems and components, and

the implementation, preservation, and enhancement of proven manufacturing and assembly techniques currently used in high-speed trainset production overseas.

The correct integration of trainset design and the execution of proven manufacturing and assembly processes mitigate risk and maximize the potential for properly functioning, safe trainsets to be delivered ready for commissioning and introduction into revenue service. The expert production of the listed car body shell and brake system components, and the associated protection of the car body (e.g., painting) is critical to a reliable, structurally sound, and safe operation. The Authority recognizes that the procurement of service-proven equipment will enhance overall network reliability and safety. HSR trainset manufacturers have advised the Authority that the “service-proven” characteristics of the trainset is preserved through minimizing changes to the design of the trainset and components and to the overall production process, and assuring the correct manufacture and assembly of components and subsystems. They have also advised of the importance of the correct and meticulous transfer of technology, recognizing that although manufacturing processes and techniques can be documented in procedures, there remains a reliance on the expertise of the individuals whom have honed their skills over decades of manufacturing and assembling HSR equipment.

Based on its review of the potential risks and hazards associated with an imperfect transfer of technology that may result in incorrectly manufactured car bodies and brake system components, the Authority has identified a risk mitigation strategy whereby these listed components would be manufactured and assembled at the manufacturer’s, or its supplier’s, established production facilities.

The procurement of expertly manufactured car body shells and brake system components, as listed above, is a critical program element leading to the safe introduction, and subsequent operation, of 220 mph HSR service in California. A Buy America waiver that allows these components to be manufactured and assembled at an established HSR manufacturer’s facility outside of the U.S. will facilitate delivery of safe, tested, and proven components and allow for safe and reliable high-speed operations. Granting of this waiver will provide assurance that safety is intrinsic and maintained during the production of the components, and that reliability can be sustained once the trainsets have entered revenue service. Granting of this waiver will also mitigate risks to the program, which include incomplete/incorrect manufacture and assembly of components, incomplete/incorrect integration of associated systems (resulting in catastrophic failures and/or delays), increased program costs, and significant schedule delay. To facilitate timely and accurate receipt of proposals based on carbuilders’ comprehensive understandings of their Buy America obligations, the Authority respectfully requests consideration, and if acceptable, granting of this waiver in advance of the Authority’s RFP release. A detailed justification for the Authority’s waiver request is set forth below.

## **1. California High-Speed Rail Program Overview**

Established in 1996 by State legislation, the Authority has a statutory mandate to plan, build, and operate a HSR system in California. By 2029, the system will run from San Francisco to the Los Angeles basin (Phase 1) in under three hours at speeds of over 200 mph. The system will eventually extend to Sacramento and San Diego (Phase 2), totaling 800 miles with up to 24 stations.

Additional information on the program can be found at the Authority's website: <http://www.hsr.ca.gov>, and in the 2016 Business Plan, which can be accessed by following this link: [http://hsr.ca.gov/About/Business\\_Plans/2016\\_Business\\_Plan.html](http://hsr.ca.gov/About/Business_Plans/2016_Business_Plan.html).

## **2. Authority Trainset Procurement Overview**

In 2016, the Authority intends to release a RFP to procure FRA Tier III-compliant HSR trainsets that are capable of operating safely at speeds up to 220 mph on California's developing HSR network. The Authority intends to procure an initial base order of 16 trainsets (inclusive of 2 prototype trainsets), with options to procure up to 70 additional trainsets.

Key dates for the solicitation are identified in the following table.

<b>Event</b>	<b>Date</b>
RFP Issued (tentative)	2016
Technical Proposals Due-Close Date	RFP Issue date + 5 months
Financial Proposals Due-Close Date	3 months min. after receipt of Technical Proposals
Selection of Apparent Best Value Proposer	2 months min. after receipt of Financial Proposals
<i>Anticipated Notice of Award</i>	<i>TBD, but approximately 2 months from Selection of Apparent Best Value Proposer</i>

## **3. An Overview of the Authority's Planned Trainset**

The Authority intends to procure a service-proven trainset platform, capable of meeting the requirements of the Authority's trainset performance specification. These trainsets, similar to the HSR infrastructure, will be Buy America compliant except where waivers have been requested from, and granted by, the FRA (refer to contract documents for Construction Packages (CP) -1 thru -4 available on the Authority's website, [http://www.hsr.ca.gov/programs/construction/design\\_build\\_construction\\_contracts.html](http://www.hsr.ca.gov/programs/construction/design_build_construction_contracts.html)).

The Authority's trainset will have an operating speed of 220 mph, and will be tested at 242 mph. As a result of these high operating and testing speeds, there are critical attributes of equipment design and manufacture that need to be respected in order to provide safe and reliable HSR operations. An example of a critical attribute is the supply of car body shells and brake system components that are produced to a standard of performance that is consistent, and already proven, with HSR equipment manufacturing. The unique HSR trainset manufacturing and assembly processes and procedures require expertise commensurate to that found at established HSR equipment manufacturers, so as to mitigate the risk of incorrect integration, and potential unsafe conditions.



#### **4. Request for Waiver**

##### FRA Buy America and Authority Request for Waiver for Car Body Shell and Brake System Components

The Authority's trainset procurement is subject to FRA's "Buy America" statute at 49 U.S.C. § 24405(a) and applicable FRA guidance.<sup>1</sup> 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 United States." 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. The Authority will include a list of components applicable to this procurement in the RFP, along with any waivers granted in advance. Tier III HSR trainsets are included in the FRA definition of rolling stock.

FRA may grant a waiver from the Buy America requirements if FRA determines that one or more of the following are true:

- (1) Applying the requirement would be inconsistent with the public interest;
- (2) 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;
- (3) Rolling stock or power train equipment cannot be bought and delivered in the U.S. within a reasonable time; and/or
- (4) Including the domestic component(s) will increase the cost of the overall project by more than 25 percent.

A cornerstone of the Authority's program is the procurement of service-proven HSR trainsets. This goal is predicated on the use of proven systems and components, and the implementation of proven manufacturing and assembly techniques. The expert manufacture of the trainset components in an established HSR equipment manufacturer's facility is essential to this objective. A Buy America waiver for the eight listed car body shell and brake system components is critical for the Authority to deliver these vital safety elements of the trainset.

The eight components subject to this waiver request are integrated into two of the major systems on the Trainsets: the car body shell and the brake system.

##### **A. Car Body Shell: (1) shell structure/frame-end, floor, roof, side; (2) integrated cab/CEM structure; and (3) vehicle paintwork**

Amtrak has advised FRA that all proposals received in response to its RFP indicated that service-proven HSR trainset designs use car body shells made of extruded aluminum elements that are then welded together to create the car shell. While common overseas in high-speed trainsets to help the trainsets meet the weight requirements for such equipment, car shell designs manufactured from aluminum extrusions are rare in the U.S., and those that do exist were

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<sup>1</sup>See FRA Buy America Frequently Asked Questions at: <http://www.fra.dot.gov/Page/P0391>.

fabricated overseas. Passenger cars in the U.S. are almost exclusively built of steel, with stainless steel being the most commonly used material.

The manufacture of car body shells for high-speed trainsets internationally is undertaken directly by the equipment manufacturer and not by third parties including other equipment manufacturers due to the proprietary nature of the equipment design and the critical role the car shells play in the safe and reliable performance of the equipment. Given that there is little or no market for aluminum extrusion passenger car shells for intercity passenger rail service in the U.S. and the limited prospects for a selected manufacturer to build high-speed trainsets in the U.S. beyond the initial order, if the waiver request were not granted it is very likely that the car body shell manufacturing capability would be created solely for a single project. In this circumstance, the Authority will be required to finance both the establishment of the facility and its retirement, including the return overseas of any design-specific machine tools and related manufacturing capability brought to the U.S. for this project.

Amtrak advised FRA that one Offeror stated that in its experience, it will take over a year to build and outfit an appropriate car body shell facility of the type needed, an additional six to nine months to transfer the technology and implement and prove out the tooling and additional time to train employees in the manufacturing process. This could add up to two years to the schedule. Moreover, the Offeror estimated that the absorption of the capital equipment cost and the technology transfer cost alone would add at least \$2,000,000 to the cost each Trainset. The cost of creating and then likely decommissioning a facility to manufacture aluminum extrusion car body shells exclusively for the short-term production of the Authority's Trainsets would divert funds from addressing critical investment needs elsewhere on the Authority's infrastructure and core systems. In addition, the Authority believes that since the performance of the trainsets will be dependent upon the high-quality fabrication of the shell structure, and that the safety of the crew and riding public are adequately protected by a properly-integrated cab/CEM structure, it is likely that those positions requiring the highest skills will be filled by experienced workers from the manufacturer's existing overseas manufacturing facilities to assure acceptable production and quality control. As a consequence, creating the ability to manufacture aluminum extrusion car body shells in the U.S. for this project will not increase sustainable U.S. economic activity.

Furthermore, the Authority is requesting a waiver for the vehicle paintwork. In response to Amtrak's RFP, Offerors have cited a recommendation that the car body shells be painted overseas, so as to protect against corrosion arising during transport. This is a valid step in ensuring the integrity of the car shells, so that they are not jeopardized by the marine environment.

***The Authority requests that the components related to the car body shells (shell structure/frame-end, floor, roof, side; integrated cab/CEM structure; and vehicle paintwork) be granted under waiver categories (1), (2), and (3), as identified above, inclusive of the steel comprising the components.***

**B. Brake System: (4) brake control unit; (5) disk brake equipment; (6) tread brake equipment/tread cleaners; (7) brake valves and (8) parking brake units**

The brake system is one of the most critical systems for safety and reliability. The brake systems being proposed for Tier III trainsets have been successfully used in international high-speed operation and are service-proven. Amtrak advised FRA that one Offeror commented that the brake system components form a service-proven friction brake control system of the trainset with quality and safety demonstrated through field testing and millions of kilometers of revenue service. These components operate as a system, integrated with the traction control system, and are available from a very limited number of qualified suppliers. Offerors to Amtrak's RFP indicated that they sought suppliers that could manufacture the brake system components in the United States, but were unsuccessful. One particular Offeror met with several well-known worldwide brake suppliers, but each of the suppliers declined to propose a domestic plan.

Based on the proposals received, Amtrak concluded that if cultivating a domestic source for the brake system components was even possible, using these unproven components would lead to high costs, reduction in reliability, delays to schedule and other risks associated with departing from a service-proven design.

As set forth above, applying the Buy America requirement would be inconsistent with the public interest because, among other things, the brake system is a safety-critical system that may be affected by using components that have not been tested in high-speed operation. Additionally, the brake system components for high-speed trainsets are not available in sufficient quantity and of a quality that is satisfactory for service-proven high-speed trainsets. Finally, developing a new supplier is not feasible within the timeframes that the Authority requires for procuring the new trainsets.

***The Authority requests that the components related to the brake system, specifically the brake control unit; disk brake equipment; tread brake equipment/tread cleaners; brake valves and parking brake units, be granted under categories (1), (2), and (3), as identified above, inclusive of the steel comprising the components.***

**5. Conclusion**

The Authority understands and appreciates the importance of domestically manufactured and assembled components and trainsets and is committed to procuring Buy America compliant trainsets for the California High-Speed Rail Program. A Buy America waiver for the limited purpose of producing the eight listed car body shell and brake system components overseas, inclusive of the steel comprising the components, will mitigate risks associated with an imperfect transfer of technology associated with the manufacture and assembly of components that are critical to the safe operation of the trainset. To facilitate timely and accurate receipt of proposals based on carbuilders' comprehensive understandings of their Buy America obligations, the Authority respectfully requests consideration, and if acceptable, granting of this waiver in advance of the Authority's RFP release. This waiver, if granted, will provide for additional assurance that the trainsets introduced for the California High-Speed Rail Program are safe, reliable, service-proven, and known to be designed and produced with the best interest of the riding

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public in mind. Due to the unique circumstances surrounding this procurement, and as supported by prior lessons learned, the Authority believes a waiver is justified.

Please direct questions, comments, and dispositions to:

Chief Counsel  
California High-Speed Rail Authority  
770 L Street, Suite 800  
Sacramento, CA 95814 USA

Thank you for your careful consideration of our request.

Sincerely,

A handwritten signature in blue ink that reads "Thomas Fellenz". The signature is written in a cursive, flowing style.

Thomas Fellenz  
Chief Counsel

cc: F. Vacca  
G. Giles

TF/JP/slc

