



U.S. Department
Of Transportation
**Federal Transit
Administration**

Headquarters

1200 New Jersey Avenue S.E.
Washington DC 20590

DEC 20 2017

Lillian Valenti
Chief Procurement Officer
Port Authority of New York and New Jersey
4 World Trade Center
150 Greenwich Street
21st Floor, NY 10007

Re: *Petition to Investigate Compliance of Successful Bidder in Accordance with 49 C.F.R. § 661.15 Track Inspection Vehicle Purchase Order No. 4500066700, FTA Grant No. NJ-44-X004-02*

Dear Ms. Valenti:

This is the final decision of the Federal Transit Administration (“FTA”) in the above-captioned matter. For the reasons stated below, FTA has determined that ENSCO Rail, Inc. (“ENSCO”) has met its burden of proving that it is compliant with its FTA Buy America Certificate, submitted with its bid to the Port Authority of New York and New Jersey (PATH) for the procurement of a track inspection vehicle, pursuant to Purchase Order No. 4500066700, FTA Grant No. NJ-44-X004-02.

Background

On November 22, 2016, MERMEC, Inc. (“MERMEC”) requested that FTA investigate the award of the track inspection vehicle, Purchase Order No. 4500066700, FTA Grant No. NJ-44-X004-02, to ENSCO. PATH awarded the contract to ENSCO on March 28, 2016, as a result of a solicitation for bids advertised on September 18, 2015. This procurement is an FTA-funded project, and therefore, subject to Federal requirements, including Buy America requirements for rolling stock procurements.

On June 20, 2016, MERMEC learned via an email from PATH’s Procurement Contracts Manager that PATH awarded the contract for a track inspection vehicle to the lowest responsible bidder. However, this email did not contain the name of the bidder to whom the contract was awarded. On July 19, 2016, MERMEC inquired with PATH as to the status of the bid but did not receive a response about the successful bidder. On September 13, 2016, MERMEC submitted a request for information through the PATH’s Public Records Access form requesting ENSCO’s bid documents, evaluation documents, and correspondence between PATH and ENSCO regarding the procurement. PATH provided the requested documents to MERMEC on

October 12, 2016. However, the documents did not contain ENSCO's certification of Buy America compliance.

On November 22, 2016, MERMEC petitioned FTA to open an investigation into PATH's award of Bid No. 43810 to ENSCO because ENSCO did not provide a Buy America certificate. Also, since ENSCO and its vehicle supplier Plasser American Corporation ("PLASSER") could not meet Buy America requirements on a similar vehicle procurement for another transit agency in 2015, MERMEC questioned whether ENSCO was now able to meet FTA's Buy America requirements for the 2016 PATH solicitation for the track inspection vehicle. On November 25, 2016, FTA requested that PATH provide copies of the Buy America certificates submitted by the three bidders, ENSCO, PLASSER, and MERMEC. On November 28, 2016, PATH provided FTA with the Buy America certificates.

However, it was not clear from the information that PATH and ENSCO submitted whether the track inspection vehicle met the Buy America requirements in 49 U.S.C. § 5323(j)(2)(C), *i.e.*, that the cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components of the vehicle and final assembly of the vehicle will occur in the United States.

Pursuant to 49 C.F.R. § 661.15, FTA presumes that a bidder or offeror that submits a certificate of Buy America compliance with its bid or offer is, in fact, complying with FTA's Buy America requirements. While PATH produced ENSCO's Buy America compliance certificate, based upon MERMEC's petition and all supporting documentation, FTA determined that the presumption of compliance was overcome. On February 17, 2017, FTA initiated an investigation into ENSCO's Buy America compliance. On March 9, 2017, PATH notified FTA that it authorized ENSCO to respond directly to FTA regarding the investigation.

To assist with the investigation, FTA hired a contractor to conduct the equivalent of a pre-award audit to determine whether ENSCO could establish that the track inspection vehicle it proposed for PATH complied with FTA's Buy America regulation. A pre-award Buy America audit is required for the purchase of rolling stock to carry passengers in revenue service (*see* 49 CFR § 663.21), but is not required for non-revenue service rolling stock vehicles. On May 2, 2017 and May 4, 2017, FTA's contractor conducted a desk audit of ENSCO's documentation at ENSCO's offices and manufacturing facility in Springfield, Virginia. On May 3, 2017, FTA's contractor visited PLASSER's manufacturing facility in Chesapeake, Virginia, and also reviewed PLASSER's documentation. In addition, ENSCO provided information for FTA's review from its supplier of an Ultrasonic Rail Flaw Inspection System (URFIS), Nordco Rail Services & Inspection Technologies (NORDCO), verifying the domestic content percentage and confidential cost information of the URFIS. The FTA and its contractor reviewed the following documents:

- ENSCO's Buy America Certification for PATH's Track Inspection Vehicle Procurement;
- Buy America Certifications from Component Manufacturers;
- Track Inspection Vehicle (TIV) Complete Bill of Materials (including a list of components and associated major subcomponents);
- Contact information for all component and subcomponent suppliers;

- Basis of assumptions included in ENSCO's Bid Price to PATH, including quantities of components and/or subcomponents and the methodology used in determining domestic content;
- Calculation of the cost to verify domestic content percentage per § 661.11;
- Source of cost information from component and subcomponent suppliers to verify the proposed cost;
- ENSCO's Final Assembly Plan for production of the track inspection vehicle;
- Final assembly plans for all component manufacturers; and
- Shipping costs in U.S. dollars for any foreign component or subcomponent.

Legal Framework for Buy America

Pursuant to FTA's authorizing statute at 49 U.S.C. § 5323(j)(2)(C), when procuring rolling stock, which includes support vehicles,¹ the cost of components and subcomponents produced in the United States must be more than 60 percent of the cost of all components and final assembly must take place in the United States. A component is defined as "any article, material, or supply, whether manufactured or unmanufactured, that is directly incorporated into an end product at the final assembly location." 49 CFR § 661.11(c). Moreover, when federal funds are used to purchase rolling stock, the supplier must sign a Certificate of Compliance with FTA's Buy America requirements. 49 CFR § 661.12.

As a condition of receiving FTA funds for the project, PATH agreed to be bound by these requirements through FTA's Master Agreement.

Decision

Based upon the foregoing, I find that ENSCO has demonstrated that it will comply with Buy America requirements for the PATH track inspection vehicle. Based on the information ENSCO provided, FTA, through its contractor, was able to independently verify that the cost of components and subcomponents produced in the United States will be more than 60 percent of the cost of all components of the vehicle and finally assembly will occur in the United States. 49 U.S.C. §5323(j)(2)(C)(i) & (ii).

The FTA's contractor verified ENSCO's domestic content percentage by examining the domestic content calculations in the Domestic Content Calculations worksheet provided by both PLASSER and NORDCO. Specifically, the contractor reviewed PLASSER's Domestic Content Calculation worksheet which detailed the names of components and subcomponents, part numbers, supplier names (foreign or domestic), Buy America certifications, unit price cost information and quantity, component and subcomponent material costs, and the component percentage of vehicle material costs. For NORDCO, the contractor examined a domestic content analysis worksheet which detailed the list of domestic and foreign subcomponents that would be used, including a description of parts, quantity, domestic content percentages, supplier locations, and component percentage of vehicle material costs.

¹ See 49 CFR § 661.3 ("Rolling stock means transit vehicles such as buses, vans, cars, railcars, locomotives, trolley cars and buses, and ferry boats, as well as vehicles used for support services.").

From this information, the contractor was able to verify that the domestic content for the track inspection vehicle is more than 60 percent, and that final assembly will occur in the U.S.

To independently confirm pricing information, the FTA contractor verified quotes from a large sample of major and minor domestic component suppliers. From his examination, the FTA contractor found that these figures closely aligned with those on ENSCO's, PLASSER's, and NORDCO's domestic content calculation worksheets. For those domestic suppliers who either did not submit Buy America certifications or whose certifications were incomplete, the FTA contractor assumed a conservative approach and considered these components or subcomponents as foreign-sourced. From all of this information, the FTA contractor was able to conclude that ENSCO, PLASSER, and NORDCO provided sufficient information and documentation to support the Certification of Buy America Compliance at the pre-award stage. *See Buy America Pre-Award Desk Review at 5-6.*²

In addition, ENSCO, PLASSER, and NORDCO provided documentation to the FTA contractor to demonstrate that final assembly of the track inspection vehicle will take place in the United States. On May 3, 2017, the FTA contractor toured PLASSER's manufacturing facility in Chesapeake, Virginia. During this tour, the FTA contractor confirmed that the track inspection vehicle's car body will be manufactured at this location. On May 2, 2017, the FTA contractor also toured ENSCO's manufacturing facility in Springfield, Virginia, and confirmed that ENSCO's Zero Speed Track Geometry Measurement System, Rail Profile Measurement System, Drive View Imaging System, Thermal Imaging System, Tunnel Wall Imaging System, and Rail Surface Imaging System will be manufactured at this location. Ultimately, ENSCO, PLASSER, and NORDCO provided sufficient information for the FTA contractor to determine that the final assembly plan was reasonable. 49 CFR § 661.11; *see Buy America Pre-Award Desk Review at 5.*

FTA recommends that PATH conduct interim audits during the manufacturing process to ensure that the final vehicle delivered pursuant to the contract contains more than 60 percent domestic content and is assembled in the United States.

Pursuant to 49 C.F.R. § 661.15(o), a party involved in this matter may request FTA's reconsideration, based on matters of fact or points of law that were not known or available to the party during the investigation, within ten (10) business days after the date of this decision.

² A copy of the June 14, 2017 Buy America Pre-Award Desk Review is enclosed.

Thank you for your cooperation in this matter. If you have any questions or concerns, please do not hesitate to contact Laura Ames, by telephone at (202) 366-2743 or by electronic mail at Laura.Ames@dot.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dana Nifosi', written in a cursive style.

Dana Nifosi
Acting Chief Counsel

Enclosure

cc (Via Electronic Mail):

Luca Ebreo, MERMEC
David P. Macaluso, ENSCO
Timothy G. Stickelman, PATH
Joann Spirito, PATH
Lauren B. Kramer, lkramer@rjo.com
Anthony Carr, FTA
Helen Serassio, FTA
Brett Rekola, KKCS
Arun Virginkar, Virginkar & Associates, Inc.

Buy America Pre-Award Desk Review

Track Inspection Vehicle
Port Authority Trans-Hudson Corporation (PATH)

From: Ensco Rail, Inc.

Site Visit: May 2-4, 2017
Report Issued: October 17, 2017

PMOC Contract Number: DTFT60-14-D-00018
Task Order Number: 01, Project Number: DC-27-5281, Work Order Number: 32
OPs Referenced: 01 – Administrative Conditions and Requirements
03 – Special Tasks
36 – Buy America Compliance Review

PMOC Firm:  **Kal Krishnan Consulting Services, Inc. (KKCS)**
800 South Figueroa Street, Suite 1210
Los Angeles, CA 90017

PMOC Lead: Robert Badger
Length of Time Firm Assigned to Project: 7 Months
Length of Time Person Assigned to Project: 7 Months

1) Executive Summary

A. Purpose

The Federal Transit Administration (FTA) has engaged the assistance of Kal Krishnan Consulting Services, Inc. (KKCS) as a Project Management Oversight Consultant (PMOC) to assist the FTA in a Buy America Pre-Award Desk Review, as further described in this report.

This report has been developed in accordance with 49 CFR §661.15, "Investigation Procedures," to summarize the PMOC's independent review and evaluation of a vendor's (Ensco Rail, Inc.) ability to comply with its affirmative "Certification of Compliance" with the requirements of both 49 USC § 5323(j)(2)(C) and 49 CFR Part 661 that was submitted with the Ensco Rail, Inc., bid to the Port Authority Trans-Hudson (PATH) on December 1, 2015, and in accordance with 49 CFR §661.12, "Certification Requirement for Procurement of Buses, Other Rolling Stock and Associated Equipment." The following key regulatory and guidance documents were utilized during this review:

- 49 USC, Chapter 53, Sub-paragraph 5323(j)
- 49 CFR Part 661, Buy America Requirements
- 49 CFR Part 663, Pre-Award and Post-Delivery Audits of Rolling Stock Purchases
- Draft revision (update) of the FTA's TPM-20, Office of Engineering, Oversight Procedure 36 (OP-36) for Buy America Compliance Reviews, dated September 2013
- FTA's Buy America Handbook - from the FTA website

More specifically, in response to a formal Petition submitted to the FTA on November 22, 2016, the FTA initiated an investigation pursuant to 49 CFR §661.15 to determine whether PATH's procurement complies with the FTA's Buy America requirements. The investigation will evaluate whether the Track Inspection Vehicle (TIV) offered by Ensco Rail, Inc. (ENSCO), in response to the PATH's Bid No. 43810, meets Buy America requirements that the cost of the vehicle components and subcomponents produced in the United States (US) is greater than sixty percent (60%) of the cost of all components and subcomponents of the vehicle, and that final assembly occurs in the US. The referenced PATH procurement is partially funded by FTA Grant No. NJ-44-X004-02.

B. Background

ENSCO was one (1) of three (3) bidders for PATH's procurement of a TIV under Bid No. 43810. The other two (2) bidders were Plasser American Corporation (PLASSER) and MERMEC, Inc. (MERMEC). On November 22, 2016, MERMEC submitted a formal petition to the FTA's Office of Chief Counsel seeking an investigation into the compliance of the apparent successful bidder (ENSCO) to the Buy America requirements in accordance with 49 CFR § 661.15.

On February 17, 2017, the FTA notified the Project Sponsor, PATH, of its intent to engage in the investigation of ENSCO, requested by MERMEC's petition. On March 9, 2017, PATH notified the FTA that it authorized the FTA to contact ENSCO directly, regarding the investigation. On March 30, 2017, the FTA engaged the PMOC to conduct a Buy America Pre-Award Desk Review and site visit of ENSCO relative to its TIV bid to the PATH Bid No. 43810.

The site visit and desk review took place on May 2-4, 2017. The PMOC visited ENSCO's facility in Springfield, Virginia, and PLASSER's facility in Chesapeake, Virginia. Additionally, the PMOC met with one of ENSCO's larger sub-suppliers (NORDCO).

The PMOC evaluated all information and documentation presented by ENSCO, PLASSER and NORDCO during the site visit, as well as follow-up correspondence in issuing this report and opinion.

C. Summary

As more fully described in Section 3.A of this report, the PMOC review provides a list of findings associated with the Buy America Pre-Award Desk Review of the ENSCO TIV being offered to PATH, as part of the Bid No. 43810.

In the review of the ENSCO bid, and the associated supporting documentation, the PMOC determined that the information and documentation provided during the review is primarily under development, or variable. Taking this finding into consideration, the PMOC has determined ENSCO's plan to comply with its Certification of Compliance with Buy America requirements to be acceptable. ENSCO's TIV meets or exceeds the requirement for greater than 60% domestically sourced materials (components and subcomponents) and final assembly in the US.

Table of Contents

1) Executive Summary	i
A. Purpose.....	i
B. Background	i
C. Summary	ii
2) Pre-Award Desk Review.....	1
A. Background	1
B. Pre-Award Buy America Review Process	2
i. Desk Audit	2
ii. ENSCO Site Visit.....	3
iii. PLASSER Site Visit.....	4
iv. NORDCO Review.....	5
B. Findings.....	6
C. Key Participants	7
i. Federal Transit Administration (FTA)	7
ii. Ensco Rail, Inc. (ENSCO)	7
iii. Plasser American Corporation (PLASSER).....	8
iv. Nordco Rail Services & Inspection Technologies, Inc. (NORDCO).....	8
v. Kal Krishnan Consulting Services, Project Management Oversight Consultant	8
Appendix A List of Acronyms	A-1
Appendix B PMOC Team.....	B-1

2) Pre-Award Desk Review

A. Background

ENSCO was one (1) of three (3) bidders for PATH's procurement of a TIV under Bid No. 43810. The other two (2) bidders were Plasser American Corporation (PLASSER) and MERMEC, Inc. (MERMEC). In a letter dated March 28, 2016 to ENSCO, PATH notified ENSCO that its bid had been accepted. Apparently, this notification was not conveyed to the unsuccessful bidder, MERMEC. Subsequently, MERMEC stated that it made numerous attempts to acquire details of the contract award and a debriefing, without success. On November 22, 2016, MERMEC submitted a formal petition to the FTA's Office of Chief Counsel seeking an investigation into the compliance of the apparent successful bidder (ENSCO) to the Buy America requirements in accordance with 49 CFR § 661.15 .

On February 17, 2017, the FTA notified the Project Sponsor, PATH, of its intent to engage in the investigation of ENSCO, requested by MERMEC's petition. On March 9, 2017, PATH notified the FTA that it authorized the FTA to contact ENSCO directly, regarding the investigation .On March 30, 2017, the FTA engaged the PMOC to conduct a Buy America Pre-Award Desk Review and site visit of ENSCO, relative to its TIV bid to PATH Bid No. 43810.

Prior to the site visit to ENSCO's facility in Springfield, Virginia, several procurement files were shared with the PMOC. On April 20, 2017, the FTA's Office of Chief Counsel, forwarded a letter to ENSCO confirming the date and intent of the site visit, as well as a list of requested documentation in support of the review.

The site visit and desk review took place on May 2-4, 2017 with the following schedule:

- Tuesday, May 2, 2017 – The PMOC representative met with the ENSCO representatives in the Springfield, Virginia, facility to review ENSCO's documentation.
- The ENSCO representatives provided several packages of information and documentation for review. ENSCO also provided a brief tour of its manufacturing facility, where the Track Geometry Measurement System's components for a TIV are manufactured and assembled. Following a full day of review, the PMOC asked ENSCO to provide additional information relating to unanswered questions regarding issues where the reviewer determined additional documentation or support was necessary. ENSCO provided that documentation on May 4, 2017, when the PMOC representative reconvened at ENSCO's Springfield, Virginia, facility.
- Wednesday, May 3, 2017 – The PMOC, along with ENSCO representatives, visited ENSCO's final assembly subcontractor facility in Chesapeake, Virginia. PLASSER is ENSCO's final assembly subcontractor. At this meeting, the PMOC representative reviewed TIV final assembly work scope assigned to PLASSER, and independently reviewed PLASSER's confidential / proprietary documentation that PLASSER had declined to share with ENSCO, due to the competitive nature of the PLASSER businesses.
- The PLASSER representatives provided a package of information and documentation for review. PLASSER also provided a comprehensive tour of its manufacturing and final assembly facility, where PLASSER manufactures and assembles TIVs, similar to

the one being procured by PATH. Following the shop tour, the PMOC representative independently reviewed PLASSER's documentation. Upon a full day of review, the PMOC asked PLASSER to provide clarification relating to an issue where the reviewer determined additional support was necessary. PLASSER submitted that clarification on May 4, 2017.

- Thursday, May 4, 2017 – The PMOC met with the ENSCO representatives in its Springfield, Virginia, facility for a follow up review of ENSCO's documentation. Additionally, the PMOC conducted an independent review of the ENSCO supplier's, Nordco Rail Services & Inspection Technologies, Inc. (NORDCO), confidential / proprietary documentation, which NORDCO had declined to share with ENSCO, due to the competitive nature of the NORDCO businesses.
- The ENSCO representatives provided updated information and documentation for review by the PMOC. After the review, the PMOC met independently with NORDCO representatives and reviewed their information and documentation. Following a full day of review, the PMOC asked NORDCO to provide additional information relating to some unanswered questions regarding issues, where the reviewer determined additional documentation or support was necessary. NORDCO submitted the additional information on May 5, 2017.

A list of ENSCO, PLASSER and NORDCO representatives in attendance is provided in Section 2.D of this report.

The PMOC evaluated all information and documentation presented by ENSCO, PLASSER and NORDCO during the site visit, as well as follow-up correspondence in issuing this report and opinion.

B. Pre-Award Buy America Review Process

The PMOC followed a process for evaluating ENSCO's compliance with its affirmative Buy America certification, regarding the PATH procurement for a TIV as outlined in FTA's OP-36 (September 2013 Draft Update), referencing as applicable, the other federal regulatory documents listed in Section 1.A of this report. In all cases, the review was predicated on an independent and objective evaluation of information and documentation provided to the PMOC by the FTA, ENSCO, and its subcontractors.

i. Desk Audit

Prior to visiting ENSCO's facility, the PMOC reviewed the PATH procurement documents and the petition that was filed with the FTA in response to PATH's award of the TIV contract to ENSCO. Included in these documents were the following:

- MERMEC's November 22, 2016 petition letter and attachments;
- PATH letter to the FTA, dated March 9, 2017, containing ENSCO's Buy America Worksheet, and ENSCO's suppliers PLASSER and NORDCO Buy America Certifications from PATH's bid forms ; and
- Bid summary, signed by PATH Procurement Department on March 29, 2017, summarizing bid prices of all three (3) bidders and their signed Buy America Certificates.

ii. ENSCO Site Visit

Upon arriving at ENSCO's Springfield, Virginia, facility on May 2, 2017, the PMOC met with four (4) individuals representing ENSCO's interests in the Pre-Award Buy America review. The names and titles of these representatives are listed in Section 2.D of this report. At the start of the meeting, ENSCO's Vice President of Contracts & Procurement reaffirmed the Non-Disclosure Agreement (NDA) signed between ENSCO and the PMOC, recognizing that some of the information to be provided during the review contained ENSCO's proprietary material. ENSCO's Vice President gave a brief presentation on the history of the ENSCO organization; and ENSCO's Project Manager provided an overview of the TIV, including the components ENSCO will furnish to the TIV final assembly supplier PLASSER. The PMOC was given a tour of ENSCO's manufacturing facility, to facilitate understanding of the components to be supplied by ENSCO.

Finally, ENSCO's Vice President of Contracts & Procurement presented the list of the documentation requested of ENSCO by the FTA, prior to the site visit. This list was supplemented by supporting documentation that ENSCO had prepared in support of the Pre-Award Buy America review during the site visit.

ENSCO's information contained:

- A four (4) page worksheet titled "Domestic Content Calculations" detailing the list of US and foreign suppliers that were assumed/proposed to be used for providing components or subcomponents for ENSCO's TIV offered to PATH. The worksheet included Name of Component / Subcomponent, Supplier Name & Manufacturing Location, whether Buy America Certification in ENSCO files, part number, Unit Price cost information & Quantity, Component / Subcomponent Material Cost, Component Percent of Vehicle Material Costs, and notes related to any general public interest waivers applicable under 49 CFR 661.7 (b) and (c) for microprocessors, computers, and software, for example.
- ENSCO asserted that its "Total Material Costs" should be used as the basis for the Buy America compliance test of ENSCO's plan to provide greater than 60% US component and subcomponent content. In summary, ENSCO's worksheet asserts that it will surpass the 60% domestic Buy America requirement. These worksheets formed the basis for most of the PMOC's review.
- Buy America Certificates provided to ENSCO by apparent suppliers for the PATH TIV that ENSCO had contacted. These Buy America Certificates indicated that the component or subcomponent suppliers would exceed the 60% domestic requirement; therefore, the certificates were affirmatively asserting compliance with Buy America requirements.
- Letters and emails memorializing records of correspondences, and a Memoranda of Understanding (MOU) or Memoranda of Agreements (MOAs) exchanged between ENSCO and its suppliers.
- ENSCO's PATH bid pricing data, in support of the four-page worksheet, in the form of historical purchase orders or estimates for other similar projects.

iii. PLASSER Site Visit

On May 3, 2017, the PMOC traveled to PLASSER's facility in Chesapeake, Virginia, to review ENSCO's final assembly facility at PLASSER, and to review final assembly work scope compliance with Buy America requirements. ENSCO's Project Manager and Vice President of Contracts & Procurement also attended this visit. Upon arriving, the PMOC met with four (4) individuals representing PLASSER's interests in the Pre-Award Buy America review. The names and titles of these representatives are listed in Section 2.D of this report. At the start of the meeting, PLASSER's Vice President, Secretary-Treasurer reaffirmed the Non-Disclosure Agreement (NDA) signed between PLASSER and the PMOC, recognizing that some of the information to be provided during the review contained PLASSER's proprietary material. PLASSER's President gave a brief presentation on the history of the PLASSER organization and PLASSER's Project Manager provided an overview of PLASSER's TIV supply, as well as final assembly work scope assigned to PLASSER by ENSCO. This work scope included the components that PLASSER will furnish to assemble the TIV.

Finally, PLASSER's Assistant Treasurer presented PLASSER's portion of the list of the documentation requested of ENSCO by the FTA, prior to the site visit. This list was supplemented by supporting documentation that PLASSER had prepared in support of the Pre-Award Buy America review during the site visit.

PLASSER's information contained:

- A five (5) page worksheet titled "Calculation of Buy America Compliance – PATH TIV," detailing the list of US and foreign suppliers that were assumed/proposed to be used for providing components or subcomponents for PLASSER's final assembled TIV to ENSCO and were to be installed at PLASSER's Chesapeake, Virginia, plant. The worksheet included Name of Component / Subcomponent, part number, Supplier Name, whether Buy America Certification in PLASSER's files, Unit Price cost information & Quantity, Component / Subcomponent Material Cost, and Cumulative Component Percent of Vehicle Material Costs. The PMOC representative analyzed the final assembly work scope for compliance with "APPENDIX D TO §661.11-MINIMUM REQUIREMENTS FOR FINAL ASSEMBLY," and further reviewed PLASSER's capability for such final assembly work during the shop tour. The PMOC determined that PLASSER met the final assembly work requirements; and, the final assembly cost was determined to be reasonable.
- PLASSER asserted its "Total Material Costs" should be used as the basis for the Buy America compliance test of PLASSER's plan to provide greater than 60% US component and subcomponent content. In summary, PLASSER's worksheet asserts that it will surpass the 60% domestic Buy America requirement for its components. These worksheets formed the basis for most of the PMOC's review of PLASSER's information.
- Buy America Certificates were provided to PLASSER by apparent suppliers for the PATH TIV that PLASSER had contacted. These Buy America Certificates indicated that the component or subcomponent suppliers would exceed the 60% domestic requirement; therefore, the certificates were affirmatively asserting compliance with Buy America requirements.

- Letters and emails memorializing records of correspondences, and MOUs or MOAs exchanged between PLASSER and its suppliers.
- PLASSER's pricing data for the PATH bid, in support of the five-page worksheet, in the form of historical purchase orders or estimates for other similar projects.
- PLASSER's final assembly cost data consisting of labor hours, hourly rates, overhead and profit for the proposed final assembly work scope, which was excluded from PLASSER's domestic content calculations. This data formed the basis for most of the PMOC's review of final assembly cost reasonableness. PLASSER's final assembly activities consisted of –
 - Installation of Main Frame/Cab Structure, Furniture, Driver's Desk, Seats and Seat Base, Computer Rack, Engine, Generator, Windows, Coupler, Air Conditioner, Brake Components, Air Compressor, Pumps/Motors, Pump Drive, Oil Cooler, Front & Rear Truck Assemblies, Water Tank Assembly, Hydraulic Tank Assembly, Insulation, Flooring, Cables, Electrical (miscellaneous);
 - Installation of ENSCO furnished equipment;
 - Interconnection of the above components as applicable, and the inspection and verification of all installation and interconnection work;
 - Final assembly of the TIV machine, including quality control and calibration;
 - PATH specific testing in Chesapeake, VA; and
 - Testing on PATH property.

iv. NORDCO Review

On May 4, 2017, the PMOC reconvened with ENSCO at the ENSCO facility in Springfield, Virginia, to review ENSCO's response to the PMOC's questions that were unanswered on the May 2, 2017 site visit. ENSCO presented previously missing information and the updated domestic content calculations worksheet with minor adjustments. Additionally, ENSCO had asked its Ultrasonic Rail Flaw Inspection System (URFIS) supplier, NORDCO's representative, to come to the Springfield, Virginia, facility to present its confidential cost information in support of NORDCO's claim of more than 60% domestic content for supply of NORDCO's components to the ENSCO TIV. NORDCO's Vice President of Inspection Technologies gave a brief presentation on the history of the NORDCO organization and provided an overview of the Ultrasonic Rail Flaw Inspection System (URFIS) that NORDCO will furnish for the ENSCO TIV.

NORDCO's information contained:

- A one (1) page worksheet titled "Made in USA Content Analysis – RB560 with E-Cab Option," detailing the list of US and foreign subcomponents that were assumed/proposed to be used for providing NORDCO's URFIS to the ENSCO TIV. The worksheet included part description, part number, quantity, % Content made in

US, Supplier location, and Cumulative Component Percent of Vehicle Material Costs.

- NORDCO asserted that its "Total Material Costs" should be used as the basis for the Buy America compliance test of NORDCO's plan to provide greater than 60% US component and subcomponent content. In summary, NORDCO's worksheet asserts that it will surpass the 60% domestic Buy America requirement for its components. This worksheet formed the basis for most of the PMOC's review of NORDCO's information.

However, NORDCO's representative did not bring all necessary backup data with him for the PMOC to verify NORDCO's domestic content percentage claim during the site visit desk review. Following a full day of review, the PMOC asked NORDCO to provide additional information, relating to some unanswered questions regarding issues where the reviewer determined additional documentation or support was necessary. NORDCO transmitted those documents on May 5, 2017. This information contained:

- Buy America Certificates provided to NORDCO by its potential sub-suppliers that NORDCO had contacted as part of NORDCO's equipment to be furnished to EnSCO for the PATH TIV. These Buy America Certificates indicated that the component or subcomponent suppliers would exceed the 60% domestic requirement; therefore, the certificates were affirmatively asserting compliance with Buy America requirements.
- NORDCO's pricing data for the PATH bid, in support of the one (1) page worksheet, in the form of historical purchase orders or estimates for other similar projects.

C. Findings

As mentioned above, the PMOC's review of ENSCO's affirmative Buy America Certificate, related to the PATH TIV bid, focused on ENSCO's plan to meet or exceed the Buy America requirement for greater than 60% components and subcomponents (as calculated by cost) in the TIV that ENSCO is offering to manufacture and deliver to PATH, and compliance with final assembly activities. A summary of our review and findings follows:

- All arithmetic calculations contained in the Total Material Costs worksheets for ENSCO, PLASSER, and NORDCO were found to be accurate, including the percentage calculations of domestic vs. foreign prices.
- Most pricing included in the domestic content worksheets of ENSCO was correlated to a relatively recent Track Geometry Car order for the Washington Metropolitan Area Transit Authority (WMATA) and that of PLASSER to Metro-North Railroad. The bid was based on the previous project costs and experience, which is typical for rolling stock bids; took into consideration any different requirements included in the PATH technical specifications to appropriately adjust their estimates; and included price escalation.
- The PMOC verified quotes from a large sample of major as well as minor US component suppliers of ENSCO, PLASSER, and NORDCO, that matched to their domestic content calculation worksheets.

- The PMOC verified that ENSCO, PLASSER, and NORDCO had obtained affirmative Buy America Certifications from most of the US Domestic component and subcomponent suppliers included in their domestic content calculation worksheets. On the other hand, for those US Domestic suppliers that either submitted incomplete certifications, or did not furnish the Buy America Certifications, the PMOC took a conservative approach to consider them as foreign suppliers.
- The PMOC was given a tour of ENSCO's Springfield, Virginia, manufacturing facility. At this tour, it was demonstrated that ENSCO's Zero Speed Track Geometry Measurement System (Z-TGMS) / Rail Profile Measurement System (TRMS), Driver View Imaging System (DVIS) / Thermal Imaging System (TIS), Tunnel Wall Imaging System (TWIS), and Rail Surface Imaging System (RSIS) to be included in the TIV for PATH will come from this facility. No physical examination of actual materials or supplies for country of origin was performed. This equipment (each is considered an individual component) makes up approximately 30% of ENSCO's TIV total material costs included in domestic content calculation worksheets, and except for two (2) small cost foreign component systems, appears to be substantially more than 60% Buy America compliant.
- ENSCO disclosed that Final Assembly of the TIV will occur in Chesapeake, Virginia, at the PLASSER facility. The PMOC was given a tour of PLASSER's Chesapeake, Virginia, manufacturing and final assembly facility. At this tour, it was demonstrated that PLASSER will manufacture the Track Inspection Vehicle Main Frame/Cab Structure and final assemble the TIV with all requisite components outlined in the PATH technical specifications; the work scope, which is above and beyond FTA requirements. The final assembly cost was reviewed and determined to be reasonable.
- Since PLASSER and NORDCO did not share their proprietary/confidential cost data with ENSCO, due to competitive nature of their business, arriving at a specific ratio of US domestic content of components, as a percentage of the overall material costs included in ENSCO's bid to PATH, was a prolonged exercise involving independent reviews of PLASSER and NORDCO information. But, the PMOC was able to ascertain that ENSCO provided a reasonable plan and enough documentation and information to support its Certification of Buy America compliance at Pre-Award.

D. Key Participants

i. Federal Transit Administration (FTA)

- Christopher Hudson, FTA Task Order Manager
- Patrick M. Centolanzi, FTA Work Order Manager
- Cecelia Comito, FTA Headquarters
- Laura Ames, FTA Headquarters

ii. Ensco Rail, Inc. (ENSCO)

- David Macaluso, Vice President, Contracts & Procurement
- Kimberly Auandee, Director, Contracts and Procurement

- Soheil Sadat, Director of Track Measuring Systems (Project Manager)
 - Jeffery Stevens, Vice President
- iii. Plasser American Corporation (PLASSER)**
- Thomas Blechinger, President
 - Robin Laskowski, Vice President, Secretary-Treasurer
 - Ross Chernitzer, Assistant Treasurer
 - Haken Uzuner, Project Manager
- iv. Nordco Rail Services & Inspection Technologies, Inc. (NORDCO)**
- Ken Kaszubinski, Vice President, Inspection Technologies
- v. Kal Krishnan Consulting Services (KKCS), Project Management Oversight Consultant (PMOC)**
- Brett Rekola, Program Manager
 - Robert Badger, Task Order Manager
 - Christopher Rekola, Quality Assurance / Control Manager
 - Arun Virginkar of Virginkar & Associates, Inc., Buy America Expert

Appendix A List of Acronyms

Acronyms	List of Terms
BART	Bay Area Rapid Transit
CFR	Code of Federal Regulations
DVIS	Driver View Imaging System
ENSCO	Ensco Rail, Inc.
FTA	Federal Transit Administration
KKCS	Kal Krishnan Consulting Services, Inc.
MERMEC	MERMEC, Inc.
MOA	Memoranda of Agreement
MOU	Memoranda of Understanding
NORDCO	Nordco Rail Services & Inspection Technologies, Inc.
NDA	Non-Disclosure Agreement
OP	FTA Oversight Procedure
PATH	Port Authority Trans-Hudson
PLASSER	Plasser American Corporation
PMOC	Project Management Oversight Consultant
RSIS	Rail Surface Imaging System
TIS	Thermal Imaging System
TIV	Track Inspection Vehicle
TRMS	Rail Profile Measurement System
TWIS	Tunnel Wall Imaging System
URFIS	Ultrasonic Rail Flaw Inspection System
US	United States
USC	United States Code
WMATA	Washington Metropolitan Area Transit Authority
Z-TGMS	Zero Speed Track Geometry Measurement System

Appendix B PMOC Team

Brett Rekola, P.E., actively participated in the oversight of this project and provided review, comments and insight for this report. Mr. Rekola serves as Program Manager for the FTA Project Management Oversight Contractor (PMOC) prime role in FTA Regions 1, 9, 10 and HQ monitoring projects. Mr. Rekola earned a B.S. in Civil Engineering from the University of Connecticut and has over 35 years of experience in transit and railroads.

Robert Badger, P.E., actively participated in the oversight of this project and provided review, comments and insight for this report. Mr. Badger serves as Task Order Manager and is a licensed professional engineer in sixteen (16) states with a BS and MS in Civil Engineering from Rensselaer Polytechnic Institute. Mr. Badger has over 40 years of experience in the transportation industry and has served as a Task Order Manager for the FTA in Regions 9 and 10.

Arun Virginkar conducted the onsite Buy America Pre-Award Desk Review and prepared the report. Mr. Virginkar has a BS in Electrical Engineering from Indian Institute of Technology, MS from Polytechnic Institute of Brooklyn, and MBA from University of Baltimore. He has over 40 years of experience in the transportation industry. Mr. Virginkar has conducted numerous Buy America audits for transit agencies and reviewed FTA Grantees' Buy America audit reports to validate Buy America compliance. He has provided PMO services for over 20 years as Vehicle and Buy America Expert for the FTA in Regions 3, 4, 5, 6, 8, 9 & 10.

Christopher Rekola is a member of the Quality Control Team, did the Quality Control review of this report. Mr. Rekola is a member of the PMOC team and has over ten (10) years of experience in transit construction and project management. He possesses BA in History and an MA in Modern European History from Providence College.

Janice Johnson, who is the PMOC Contract and Terms Manager and a member of the Quality Control Team, did the final Quality Control review of this report. Ms. Johnson has a background in English studies and over 20 years of related project experience.