



Gavel & Dorn Engineering, PLLC

6730 Freedom Drive, Charlotte, NC 28214, 704-483-2054

May 4, 2018

Theresa Penney, Project Manager
State Revolving Fund
S. C. Department of Health and Environmental Control
2600 Bull St.
Columbia, SC 29201

VIA EMAIL

RE: **AIS Waiver Request for Push-on Fittings**
Berea SRF 735-01 Sewer Rehabilitation Project

Dear Ms. Penney:

As stated in my email correspondence to you on April 10, 2018 we have not found a domestic manufacturer of the fittings needed to complete this project. We have followed the step-by-step guidance in the March 20, 2014 memorandum from the EPA on the implementation of American Iron and Steel provisions of P.L. 113+-76, Consolidated Appropriations Act, 2014.

Included with this letter you will find the following documents to support the request for a Waiver to the American Iron and Steel certification requirements for the use of push-on ductile iron fittings manufactured by Harrington Corporation (HARCO).

1. Summary of the project and the efforts to obtain domestic produced push-on fittings, including responses to the Appendix 1 Information Checklist for Waiver Request consistent to the Availability Waiver Request submittal requirement.
2. Supporting documents of email communications from the Contractor, suppliers and manufacturer.

We trust that the information enclosed is complete for your review and submittal to the EPA to complete the waiver request process. If you need additional information to complete your review, please do not hesitate to contact us.

Sincerely,

GAVEL & DORN ENGINEERING, PLLC

A handwritten signature in blue ink, appearing to read "Timothy A. Hemker".

Timothy A. Hemker, PE
Project Engineer



ATTACHMENT 1

American Iron and Steel (AIS) Waiver

SRF Project Number: 735-01 – Sanitary Sewer Rehabilitation Project

Berea Public Service District

Greenville, South Carolina

SUMMARY OF PROJECT AND DESIGN PROTOCOL:

The SRF 735-01 Sewer Rehabilitation Project is in Greenville, SC and is funded by a recycle fund loan through the Clean Water State Revolving Loan Fund (CWSRF). CWSRF recipients are required, by the American Iron and Steel (AIS), to procure all iron and steel products that are manufactured domestically.

This project is one of a three-phase project approach to completing the rehabilitation of targeted sanitary sewer mains in the Berea system. This first phase work consists of point excavations completed to remove defects mapped in the sanitary sewer system consistent with the sanitary sewer system evaluation survey (SSES). Many of these repairs are completed on clay sewer lines at the service connections to the gravity sewer main. In addition, many of these lines are scheduled for comprehensive rehabilitation in subsequent phases of this work through lining of the sewer mains using a cured-in-place liner. Because of this lining process previous experience has found that the use of ductile iron fittings at the service connections is integral to the successful completion of the CIPP lining service line reinstatement. In addition, the HARCO fittings are unique in that they are manufactured to connect to low pressure PVC pipe to develop a water tight connection in the gravity sewer system. This is the goal of this rehabilitation process, to remove defects in the sewer system that contribute to groundwater inflow and infiltration.

HARCO fittings specified as a part of SRF 735-01 project include the ductile iron 8x6 Tee-Wyes push-on fitting. The design team specified the HARCO fittings as it provides a consistently durable, water-tight connection for completing repairs to sanitary sewer service laterals. The push-on fitting is complete with gaskets that integrally connect with the standard ASTM D-3034, SDR-35 PVC gravity sewer pipe used in the repairs, without the need for any transition gasket or coupling.

DISCOVERY OF PRODUCT ORIGIN OF MANUFACTURE AND ALTERNATE SOURCES OF MATERIAL:

The utility contractor brought to our attention that he could not secure the AIS certification from his supplier, as the specified fittings did not meet with the AIS requirements. While all published literature implies that HARCO maintains production factories in the United States, we learned from the HARCO representatives that the ductile iron fittings are produced outside of the US and finished at the US facilities.

Further research indicated the no other ductile iron fitting manufacturer could domestically produce a push-on fitting specified to meet the AIS requirements.



The design team is requesting that a waiver be issued for the HARCO ductile iron 8x6 Tee-Wyes push-on fitting specified in the project. In accordance to the guidelines for the AIS waiver request, the specified information is listed below following the Availability provisions in the Waiver process.

I. General

A. *Description of the foreign and domestic construction materials*

The ductile iron push-on 8x6 tee-wye fitting and the ductile iron push-on 8x6 wye fitting are manufacture in HARCO's foreign facility with some finishing processes completed in the domestic factories. We understand that such finishes include some exterior and most all interior coatings, as well as the installation of the joint gaskets.

B. *Unit of measures*

One fitting will be used for each lateral sewer service repair completed in this project.

C. *Quantity*

There will be approximately 310 fitting required for this project.

D. *Price*

The quoted unit price from the contractor for the fittings is \$320.00 each.

E. *Time of delivery or availability*

It will take approximately 3 weeks to deliver the specified fittings after the order is approved.

F. *Location of the construction project*

The SRF 735-01 Sanitary Sewer Rehabilitation project is in Greenville County SC.

G. *Name and address of the proposed supplier*

The name and address of the supplier for the 8x6 Tee-Wye fitting is:

HARCO Fittings
3721 Cohen Place
Lynchburg, VA 24501-5047

H. *Detailed justification for the use of foreign construction materials*

- The HARCO push-on fitting has a proven track record for durability in the construction process of gravity sewer repair where a cured-in-place liner is installed following the point repair process. The ductile iron fitting provides for a durable surface where the robotic lateral reinstatement cutter can follow the profile opening of the ductile iron fitting to remove the liner material coupon to reinstate the lateral opening to the main sewer after the liner is installed. The ductile iron material provides a surface superior to PVC, so damage will not occur from the reinstatement process at the lateral connection.



Furthermore, the HARCO ductile iron fitting is consistent with the manufacturing tolerances of ASTM 3034 PVC pipe used in low pressure gravity sewer construction. The fitting provides for a water-tight connection without the use of transition gaskets or couplings.

II. Availability Waiver Request

A. *Supplier information*

The HARCO push-on fittings were specified to provide a durable fitting during the construction process.

B. *Documentation to find available domestic sources*

The Gavel & Dorn design team have been in contact with the following fitting manufactures.

- Sigma Co DI Fittings
- Star Pipe Products
- McWain Ductile
- American Pipe Flex Ring Fittings
- HARCO Fittings

After contacting the listed manufacturers, our team concluded that the specified push-on fittings are not domestically produced. Mechanical joint ductile iron fittings are available from domestic manufacturers, however the use will of these fittings will result in increased project installation costs, and these fittings are manufactured for pressure pipe installations not gravity sewer low pressure pipe. As such these fittings will not mate directly with ASTM 3034 PVC pipe without the purchase and use of transition gaskets.

C. *Project Schedule*

- Bid Opening: August 1, 2017
- Notice-to-Proceed Construction: March 5, 2018
- Project Completion: December 30, 2018

Timothy Hemker

From: Bill Williams <saludallc15@gmail.com>
Sent: Tuesday, April 17, 2018 12:57 PM
To: Timothy Hemker
Subject: Fwd: FW: Harco Ductile Iron Sewer Fitting
Attachments: Harco Ductile Iron Sewer Submittal.pdf

----- Forwarded message -----

From: **David Harmon** <david.harmon@fortiline.com>
Date: Tue, Apr 17, 2018 at 8:36 AM
Subject: FW: Harco Ductile Iron Sewer Fitting
To: "Bill Williams (saludallc15@gmail.com)" <saludallc15@gmail.com>

David Harmon | *Outside Sales*



From: John Fralick <JFralick@harcofittings.com>
Sent: Tuesday, April 17, 2018 7:47 AM
To: David Harmon <david.harmon@fortiline.com>
Subject: Harco Ductile Iron Sewer Fitting

David,

All Harco Ductile Iron Sewer products are imported from offshore foundries.

John Fralick

Harco Fittings

Mid Atlantic Territory Manager

www.harcofittings.com

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Bill Williams, PE / PLS
Saluda Construction LLC
PO Box 2345
Greenville, SC 29602

saludallc15@gmail.com

Timothy Hemker

From: Timothy Hemker
Sent: Tuesday, April 10, 2018 8:10 AM
To: 'Chad Howard'
Cc: Jason Dorn; Kevin Wilson; 'Candace Powell'
Subject: RE: star domestic push on fittings

Chad,

Thanks. That is what we were finding, too, but I wanted to make sure that there was not some hidden resource out there that could fit the requirements of the EPA funding.

Thanks for checking on this for us.

Tim

Timothy A Hemker, PE
Gavel & Dorn Engineering, PLLC
6730 Freedom Drive
Charlotte, NC 28214

From: Chad Howard <CHoward@consolidatedpipe.com>
Sent: Tuesday, April 10, 2018 8:07 AM
To: Timothy Hemker <themker@gaveldorn.com>
Subject: RE: star domestic push on fittings

Tim, the Star fittings that I passed along to you to look at were suggested to me from another guy here in the office. After receiving your email I did more research and from what I can tell these are also going to be import on there push fittings. I am unable to find a domestic push fitting, I am not sure that it even available.

Chad Howard
Sales
Consolidated Pipe & Supply Company
1727 White Horse Rd
Greenville SC 29605

www.consolidatedpipe.com

