



Public Works Department
Architectural Engineering & Parks Division

May 14, 2020

E-MAIL Corcelli.Leslie@epa.gov

Ms. Leslie Corcelli
U.S.EPA
Office of Wastewater Management

Subject: **Request for Waiver of AIS Provisions for Small Diameter Piping for the Pump Station No. 2 Power Reliability and Surge Protection Project, Clean Water State Revolving Fund (CWSRF) Project NO. C-06-8032-110**

Dear Ms. Corcelli:

The City of San Diego is requesting a product-specific project waiver of AIS provisions be issued for ¾-inch to 2-inch diameter 150# stainless steel pipe fittings for the construction of the Pump Station No. 2 Power Reliability and Surge Protection Project. In accordance with the United States Environmental Protection Agency (USEPA) memorandum, Implementation of American Iron and Steel provisions of P.L. 113-76, Consolidated Appropriations Act, 2014, the information required for a waiver to be processed is included below and in the attached documents.

Project Background

Pump Station No. 2 Power Reliability and Surge Protection Project will improve power reliability and provide standby power at the Pump Station, thus protecting against surges during outages and ultimately preventing sewage spills. It includes the construction of a new power generation building, in which will be installed two natural gas generators and two diesel generators. Additionally, two motor-driven pumps will be replaced with variable frequency drive pumps.

The Pump Station No. 2 project is funded by a loan through the Clean Water State Revolving Loan Fund (CWSRF). The Consolidated Appropriations Act of 2014 includes an "American Iron and Steel" (AIS) provision that requires recipients of CWSRF assistance to use iron and steel products produced in the United States.

The Pump Station No. 2 project includes the installation of ¾-inch to 2-inch diameter stainless steel pipe, which is subject to AIS provisions. The fittings will be used on the following systems: actuator air system, instrument air system, industrial water system, natural gas system, the urea system, the water softener and the potable water system.

Discussions with possible manufacturers and suppliers for the ¾-inch to 2-inch diameter stainless steel fitting suppliers have indicated that none are able to meet both the project specifications and the AIS provisions. It is believed that these products are not produced in the U.S. in sufficient and reasonably available quantities and of satisfactory quality to meet the needs of the project.

General

The project stainless steel piping specifications are at Attachment No. 1.

NOTE: The referenced attachments with project diagrams, schedules, and supplier correspondence are in formats that do not meet the Federal accessibility requirements for publication on the Agency's website. Hence, these exhibits have been omitted from this waiver publication. They are available upon request by emailing CWSRFWaiver@epa.gov.

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The project needs fourteen (14) 2-inch fittings, sixty-one (61) 1 ½-inch fittings, fourteen (14) 1 ¼-inch fittings, twenty-one (21) 1-inch fittings and thirteen (13) ¾-inch fittings. For a total cost of about [REDACTED]. See Attachment No. 2. For a detailed breakdown.

The project anticipates needing them on or before 7/15/20 in order to meet the planned start of Functional Testing of November 1, 2020, for a projected Project Completion Date of November 22, 2022. If the start of Functional Testing is delayed, the projected Project Completion Date could slip to the Fall of 2023 due to Wet Weather constraints on taking sewage pumps out of service during possible rain events.

The Accepted Shop Drawing for the fittings is at Attachment No. 3.

Location of the construction project

Pump Station No. 2
4077 North Harbor Drive
San Diego, CA 92101

Name and address of the proposed supplier

Ferguson Waterworks #1083
11909 Tech Center Court
Poway, CA 92064-7139

Availability Waiver Request

The City of San Diego made a good faith effort to solicit bids for domestic iron and steel products, as demonstrated by language in requests for proposals, contracts, and communications with prime contractor. Refer to Attachment 4, "Pump Station 2 Power Reliability and Surge Protection Attachment E - Supplementary Special Provisions (Rev. Aug. 2016)", where the AIS provision contract language was incorporated into the Contract.

The General Contractor Steve P. Rados contacted the following manufacturers about the availability of the specified pipe.

- MultAlloy
- Gibson Stainless & Specialty
- Pennsylvania Machine Works, Inc.

However, none of the manufacturers contacted could domestically source the pipe in accordance with the contract requirements. Refer to Attachment No. 5, the email correspondence from Steve P. Rados, which contains the list of manufacturers contacted and their responses.

If you have any questions, please contact Junmin Pan, Associate Engineer, at 619-533-6682 or email address JPan@sandiego.gov.

Sincerely,



Junmin Pan
Associate Engineer
Architectural, Engineering, and Parks Division

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Attachments:

- No. 1 – Section 15010 Stainless Steel Specifications
- No. 2 – Ferguson Waterworks Fitting Quotation
- No. 3 – Submittal 661 - 15010-20 Small Bore SST Piping, Fittings and Valves
- No. 4 – Pump Station 2 Power Reliability and Surge Protection Attachment E - Supplementary Special Provisions (Rev. Aug. 2016)
- No. 5 – List of Manufacturers Contacted and Their Responses
- No. 6 – Current Project De Minimis Log

Cc: Stephanie White, State Water Resources Control Board
Joshua Fegurgur, State Water Resources Control Board
Jong Choi, Senior Civil Engineer, Public Works Department
Dino Ciafre-Garay, Senior Civil Engineer, Public Works Department
David Manela, Associate Engineer, Public Works Department
Jose Lizarraga, Assistant Engineer, Public Works Department
Brian Mandell, Debt Manager, Debt Management
Gregg Degen, Consulting CM/RE, Black & Veatch Corporation
Waqar Amjad, Consulting CM/RE, Black & Veatch Corporation

Attachment No. 1
Section 15010 Stainless Steel Specifications

- A. Unless otherwise indicated, stainless steel pipe shall be Type 316 Schedule 40 threaded pipe conforming to ASTM A 312 with stainless steel threaded fittings, or with stainless steel welded fittings, where indicated. Lightweight stainless steel pipe shall be Type 316 Schedule 10 pipe conforming to ASTM A 312, with stainless steel welding fittings. All threaded piping shall include 316 stainless steel unions located, at a minimum, at all pieces of equipment, valves, or other areas where maintenance occurs.
 - a. Where the compressed air piping system requires flanged connections 300lb flanges shall be used.

2.3 STAINLESS STEEL TUBING

- A. Stainless steel tubing shall be made of Type 316 L stainless steel to the requirements of ASTM A 269, of minimum 1/4-inch inside diameter, or as indicated, for the test pressure required. The fittings shall be swage ferrule design of Type 316 L stainless steel, of the double acting ferrule design, providing both a primary seal and a secondary bearing force. Flare bite or compression type fittings are not acceptable.

2.4 RED BRASS PIPE

- A. Brass pipe shall conform to the requirements of ASTM B 43. Fittings shall be of bronze conforming to the requirements of ASTM B 62 with threaded ends, conforming to ANSI/ASME B16.15.

2.5 COPPER PIPE

- A. Copper pipe shall be hard drawn, to the requirements of ASTM B 42, with regular or extra strong wall thickness, as required for the test pressure. Copper pipe shall have screwed ends for NPT fittings, or brazed joints. The fittings shall be threaded cast bronze fittings to the requirements of ANSI/ASME B16.15, class 125 or 250, as required, or flanged cast copper alloy fittings to the requirements of ANSI/ASME B16.24, with 150 lbs rating, or as required.

2.6 COPPER TUBING

- A. Copper tubing shall conform to the requirements of ASTM B 88 and shall be Type K, soft temper for buried tubing and hard drawn for above-ground application. Fittings shall be soldered or sweated on and shall be of wrought copper conforming to ANSI B16.22. Soldered joints shall contain 95-percent tin and 5-percent antimony. For oxygen service, joints shall be made with silver solder. No solders or fluxes containing more than 0.2 percent of lead shall be used.

2.7 POLYVINYL CHLORIDE PRESSURE PIPE, SOLVENT-WELDED

- A. Polyvinyl chloride pressure pipe shall be made from all new rigid unplasticized polyvinyl chloride and shall be Normal Impact Class 12454-B, Schedule 80, conforming to ASTM D 1785, unless otherwise indicated. Elbows and tees shall be of the same material as the pipe. Joint design shall be for solvent-welded construction.

2.8 CHLORINATED POLYVINYL CHLORIDE PRESSURE PIPE, SOLVENT-WELDED

- A. Chlorinated polyvinyl chloride pressure pipe, for hot, corrosive solutions and where indicated, shall be made from all new rigid unplasticized chlorinated polyvinyl chloride, Class 23447-B, and shall be Schedule 80 conforming to ASTM F 441, with solvent-welded fittings of the same material as the pipe.

2.9 POLYPROPYLENE PIPE

- A. Polypropylene pipe, for chemical drains and where indicated, shall be Type 1, Schedule 80 pipe conforming to ASTM D 4101, with drainage pattern fittings made of the same material and shall be joined by the thermo-seal fusion process, or by threading, or flanging.

2.10 PROCESS GLASS PIPE

- A. Process glass pipe, for chemical drains and where indicated, shall be made of chemically resistant, low-expansion Type 1 borosilicate glass with conical ends and drainage fittings of the same material as the pipe, with compression couplings and Teflon joints, conforming to ASTM C 599. Where concealed or buried, process glass pipe shall be armored with a factory-applied protective jacket of polystyrene, or similar material.

2.11 FIBERGLASS REINFORCED PLASTIC PIPE

- A. Fiberglass reinforced plastic pipe shall be machine-made reinforced thermosetting resin pressure pipe, manufactured by the filament winding process conforming to ASTM D 2996, suitable for exposed or buried service. Unless otherwise indicated, it shall be made of epoxy resins and continuous glass filaments, wound together over a resin-rich reinforced liner, with fittings made of the same material. The pipes shall have adhesive-bonded bell and spigot joints or flanged connections, and shall be suitable for operating pressures of 175 psig at temperatures up to 200 degrees F, or for temperatures up to 300 degrees F at derated pressures.

2.12 CAST IRON SOIL PIPE

- A. Cast iron soil pipe and fittings shall be made of gray cast iron, service weight, conforming to ASTM A 74, suitable for service in drainage, waste, vent, and sewer lines. The pipes and fittings shall have caulked lead bell and spigot joints, or hubless joints with stainless steel couplings over suitable elastomer sleeves.

2.13 CORROSION-RESISTANT CAST IRON SOIL PIPE

- A. Corrosion-resistant cast iron soil pipe and fittings shall be made of high-silicon cast iron conforming to ASTM A 518, service weight, suitable for chemical drains and vents. The pipes and fittings shall have caulked lead bell and spigot joints, or hubless joints with stainless steel couplings over suitable elastomer sleeves.

PART 3 -- EXECUTION

3.1 INSTALLATION

- A. **General:** Mill piping shall be installed in accordance with the manufacturer's installation instructions.
- B. **Small Steel Pipe:** Buried galvanized or black steel pipe shall be coated in accordance with Section 09800 Protective Coating or with an extruded high density polyethylene coating with minimum thickness of 35 mils.
- C. **Plastic Pipe:** PVC, CPVC, and FRP pipe joints shall be solvent-welded in accordance with the manufacturer's instructions. Expansion joints or pipe bends shall be installed to absorb pipe expansion over a temperature range of 100 degrees F, unless otherwise indicated. Care shall be taken to provide sufficient supports, anchors, and guides, to eliminate stress on the piping.

3.2 CONTINUITY BONDS

Attachment No. 2
Ferguson Waterworks Fitting Quotation



FERGUSON WATERWORKS #1083
 11909 TECH CENTER COURT
 POWAY, CA 92064-7139

Phone: 858-391-3700
 Fax: 858-391-5958

Deliver To: From: John Jacoste Comments:
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15:28:18 APR 24 2020

FERGUSON WATERWORKS #1083

Price Quotation
 Phone: 858-391-3700
 Fax: 858-391-5958

Bid No: B367383
Bid Date: 04/24/20
Quoted By: XJJ

Cust Phone: 714-835-4612
Terms: NET 10TH PROX

Customer: STEVE P RADOS INC
 719-SAN DIEGO PMP STN 2
 PO BOX 15128
 SANTA ANA, CA 92735

Ship To: STEVE P RADOS INC
 719-SAN DIEGO PMP STN 2
 PO BOX 15128
 SANTA ANA, CA 92735

Cust PO#: 150# SSTL FITTINGS

Job Name: 719-SAN DIEGO PMP STN 2

Item	Description	Quantity	Net Price	UM	Total
	2" FITTINGS				

DS6CTTSP114K	2 SS 316 150# THRD TEE	4		EA	
DS6TUSP114K	2 SS 316 150# THRD UNION	5		EA	
DS6BSTCSP114K	2 SS 316 150# THRD COUP	5		EA	
	1-1/2" FITTINGS				

DS6CT9SP114J	1-1/2 SS 316 150# THRD 90 ELL	35		EA	
DS6CTTSP114J	1-1/2 SS 316 150# THRD TEE	3		EA	
IS6CTUJ	1-1/2 SS 316 150# THRD UNION	8		EA	
DS6BSTCSP114J	1-1/2 SS 316 150# THRD COUP	10		EA	
A76F10701A	LF 1-1/2 SS 1000# THRD FP BV NEED SIZES FOR BUSHINGS	5		EA	
	1-1/4" FITTINGS				

DS6CT9SP114H	1-1/4 SS 316 150# THRD 90 ELL	5		EA	
DS6CTTSP114H	1-1/4 SS 316 150# THRD TEE	4		EA	
DS6TUSP114H	1-1/4 SS 316 150# THRD UNION NEED SIZING FOR BUSHINGS	5		EA	
	1" SS FITTINGS				

DS6CT9SP114G	1 SS 316 150# THRD 90 ELL	15		EA	
DS6CTTSP114G	1 SS 316 150# THRD TEE	3		EA	
DS6TUSP114G	1 SS 316 150# THRD UNION	3		EA	
	3/4" SS FITTINGS				

DS6CT9SP114F	3/4 SS 316 150# THRD 90 ELL NEED SIZING FOR BUSHINGS	13		EA	

Net Total:
Tax:
Freight:
Total:



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