



**WATER RESOURCES INTEGRATION PROGRAM
TWIN OAKS WEST PUMP STATION PHASE I
SAWS JOB NO. 13-8611-220
SOLICITATION NO. B-14-013-DD**

**ADDENDUM NO. 5
September 9, 2014**

To Respondent of Record:

This addendum, applicable to work references above, is an amendment to the bidding documents and as such will be part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the addendum number and issue date in the space provided in submitted copies of the proposal.

A. DRAWINGS.

1. Sheet PIDTO-05 (94 of 113). Change the designation of PRV-101 to PRV-102. Change the designation of PRV-102 to PRV-103.

Delete the text "insulating flange between stainless steel piping and copper piping"

On the right side of the sheet, change the ¼" CU piping to ¼" SS and change the 2" CU piping to 2" SS.

2. Sheet PIDTO-06 (95 of 113). Replace Note 2 to read as follows"

"2. All compressed air piping shall be stainless steel, as specified in section 15064."

B. TECHNICAL SPECIFICATIONS.

1. SECTION 15099 – PRESSURE VALVES.

- a. Replace Section 15099 with the revised Section 15099 included in this addendum.

Each Respondent is requested to acknowledge receipt of this Addendum No. 5 by his/her signature affixed hereto and to file same as an attachment to his/her proposal.

The undersigned acknowledges receipt of this Addendum No. 5 and the proposal submitted herewith in accordance with the information and stipulation set forth.

Date

Signature of Respondent

END OF ADDENDUM



Section 15099

PRESSURE VALVES

PART 1 – GENERAL

1-1. SCOPE. This section covers the furnishing of pressure relief and pressure reducing valves as specified herein.

Piping, pipe supports, insulation, and accessories which are not an integral part of the valves or are not specified herein are covered in other sections.

1-2. GENERAL.

1-2.01. General Equipment Stipulations. The General Equipment Stipulations shall apply to all equipment and materials provided under this section. If requirements in this specification differ from those in the General Equipment Stipulations, the requirements specified herein shall take precedence.

1-2.02. Identification. Valves specified herein shall be identified in accordance with the Equipment and Valve Identification section.

1-3. SUBMITTALS.

1-3.01. Drawings and Data. Three sets of complete fabrication and assembly drawings, together with detailed specifications and data covering materials, parts, devices, and accessories forming a part of the equipment furnished, shall be submitted in accordance with the Submittals Procedures section. The data and specifications for each unit shall include, but shall not be limited to, the following:

Name of manufacturer.

Type and model.

Construction materials and finishes.

Unit dimensions.

Performance curves indicating flow capacity versus pressure drop.

1-3.02. Operation and Maintenance Data and Manuals. Adequate operation and maintenance information shall be supplied as required in the Operation and Maintenance Data section. Operation and maintenance manuals shall be submitted in accordance with the Submittals Procedures section. The operation and maintenance manuals shall be in addition to any instructions or parts lists packed with or attached to the equipment when delivered.

PART 2 – PRODUCTS

2-1. PERFORMANCE AND DESIGN REQUIREMENTS. Pressure Valves shall be designed to meet the service requirements as indicated herein and in the Pressure Valves Schedule.

Each valve shall be designed to provide tight shutoff under conditions of no flow and shall not "hunt" under ordinary flow conditions. Valves shall be selected and sized as recommended by the valve manufacturer. Valve pressure setpoint shall be adjustable to at least 20 percent above and below the reduced pressure setpoint.

2-2. ACCEPTABLE MANUFACTURERS. Acceptable manufacturers and specific products are listed in the Construction paragraph.

2-3. MATERIALS. Valve materials shall be as indicated below and in the Construction paragraph.

Shop Coatings

Epoxy Enamel, NSF certified (Liquid Service)	Ameron "Amerlock 400 High-Solids Epoxy Coating", Carboline "Carboguard 891", or Tnemec "Series N140 Pota-Pox Plus"; immersion service.
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2-4. CONSTRUCTION.

2-4.01. Water Service.

Pressure Relief Valves for water service shall be pilot-operated type as indicated in the Valve Schedule.

Pilot-operated valves shall be globe type with flanged ends. The valves shall be provided with epoxy coated ductile iron body, bronze trim, and Buna-N rubber diaphragm and disc. The pilot regulating valve shall be bronze with stainless steel trim. Pilot-operated pressure relief valves shall be Cla-Val Model 50-01 **with an anti-cavitation trim**, or the equal model from GA Industries, Watts Singer, or Bermad. No other manufacturer will be allowed.

Pressure Reducing Globe Valves for water service shall be pilot-operated type as indicated in the Valve Schedule.

Pilot-operated valves shall be globe type with flanged ends. The valves shall be provided with epoxy coated ductile iron body, bronze trim, and

Buna-N rubber diaphragm and disc. The pilot regulating valve shall be bronze with stainless steel trim. Pilot-operated pressure relief valves shall be Cla-Val Model 90-01, or the equal model from GA Industries, Watts Singer, or Bermad. No other manufacturer will be allowed.

2-4.02. Air Service. Pressure reducing valves for air service shall have a cast iron or steel body with stainless steel trim and a composition disc. Pressure reducing valves shall be furnished with integral or line mounted inlet filters/strainers and discharge pressure gauges. Valves shall be as manufactured by Fisher Controls; O. C. Keckley Co.; Leslie Controls, Inc.; Spirax Sarco, Inc; or equal.

2-5. SAFETY VALVES FOR AIR SERVICE. Safety valves for air service shall be ASME labeled and shall have carbon steel bodies with stainless steel seats and discs, packed lifting levers, and integral spring enclosures. Gauges shall be provided for all valves. The safety valves shall be located as indicated on the drawings. The safety valves shall be as manufactured by Consolidated or Crosby.

Safety Valves shall be selected and sized as recommended by the valve manufacturer. Safety valves shall be installed downstream from pressure reducing valves.

Safety valves for compressed air service shall be rated for the capacity of all the compressors running simultaneously.

2-6. SHOP PAINTING. All ferrous metal surfaces of valves and accessories, both interior and exterior, shall be shop painted for corrosion protection in accordance with the following list. The valve manufacturer's standard coating will be acceptable, provided it is functionally equivalent to the specified coating and is compatible with the field painting specified in the Protective Coatings section.

Interior Surfaces

Liquid Service

Epoxy (NSF 61 certified).

Exterior Surfaces

Universal primer with epoxy finish coat.

PART 3 – EXECUTION

3-1. INSTALLATION. Materials furnished under this section will be installed in accordance with the Valve Installation section.

End of Section

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15099-S01
Pressure Valve Schedule

Performance and Design Requirements				
Valve Tag Number	PRV-101 (20")	GB-101 (24")	PRV-102 & PRV-103	
Valve Type	Pressure Relief/Sustaining Valve	Pressure Reducing Globe Valve	Pressure Reducing Valve	
Location	Pump Bypass	Recharge Control Structure	Compressed Air System	
Type of Service (1)	W	W	A	
Type (2)	PO	PO	DO	
Maximum Inlet Pressure				
psig (kPa gauge)	215	200	250	
Minimum Inlet Pressure				
psig (kPa gauge)	100	78	300	
Pressure Setpoint				
psig (kPa gauge)	22	60	175	
Maximum Flow (3)				
gpm (L/s, cms, cms)	14,000	31,250	1000 scfm	
Ordinary Flow				
gpm (L/s, cms, cms)	10,500	6,000	500 scfm	
Minimum Controlled Flow				
gpm (L/s, cms, cms)	2,000	2,775	500 scfm	
Anti-cavitation trim	Yes	No		
Remarks				

Notes:

(1) Abbreviations for types of service are as follows:

W	Water
NG	Natural Gas
PG	Propane Gas
DG	Digester Gas
A	Air

(2) Abbreviations for pressure Relief valve type are as follows:

DO	Direct-operated
PO	Pilot-operated
POL	Pilot-operated with low flow bypass

(3) Units of flow are as follows:

Water service	gallons per minute (gpm) (Liters per second [L/s])
Gas Service	cubic feet per hour (cfh) (Cubic meters per second [cms])
Air Service	cubic feet per minute (cfm) (cubic meters per second [cms])

End of Schedule