



December 18, 2018

Paul Brandl, P.E.  
State Revolving Fund Program  
Division of Water Restoration Assistance  
3900 Commonwealth Blvd. MS 3505  
Tallahassee, Florida 32399-3000

### Request for Waiver for Non-AIS Component in SRF Project

Project Sponsor: Destin Water Users Project: SRF Project DW46012

- Description of construction material that is non-AIS
  - Bermad 710-B control valve
- Unit of measure
  - Each
- Quantity
  - One
- Price
  - Included in lump sum pricing for foundation and sitework (Item pricing is [REDACTED]). Total project cost is [REDACTED]
- Time of delivery or availability
  - November 2018
- Location of Construction Project
  - Forest Street, Destin, FL (Okaloosa County)
- Name and address of proposed supplier
  - Phoenix Fabricators and Erectors, LLC  
182 S. County Road 900 East  
Avon, IN 46123  
(Fabricator and Installer of new tank to be controlled by the valve)
- Detailed justification for the use of foreign construction materials
  - Due to the close proximity of the new Destin Water Users (DWU) elevated storage tank to an existing well, it was determined that an automated system to close off the tank when full would be required. As DWU has an existing SCADA system, it was desired to integrate the valve with the SCADA system to allow more precise control than is obtainable with a typical altitude valve. To do this a solenoid-controlled valve was selected. Most solenoid-controlled valves in the industry open and close by leveraging the pressure differential across the valve to raise or lower a diaphragm, which in turn opens and closes the main valve. The opening of the valve is accomplished by venting the upper chamber to the low-

pressure side of the valve, or to the atmosphere, which allows the diaphragm to rise and opens the main valve. When vented to the atmosphere the valve will open without a pressure differential in the pipeline. However, fully closing these valves requires a pressure differential. This closing issue has caused difficulties in the DWU system recently and prevented the full utilization of at least one elevated storage tank in their system. Since elevated storage tanks are designed to meet the high fire-flow demands of the system, they are outfitted with large pipelines entering/exiting the tank. The typical flow rates in the lines are much lower than the fire-flows and do not generate a pressure differential across the valve under normal use. In order to prevent these issues with the new elevated storage tank currently under construction and allow full use of capacity of the tank, a solenoid controlled valve was sought that would open and close completely, regardless of differential pressure across the valve. The search led to the Bermad Model 710-B Powered Opening Solenoid Controlled Valve. It is a double chambered, hydraulically operated, diaphragm actuated control valve that can open and close fully, regardless of valve differential pressure. The dual chambered design vents the upper chamber to atmosphere to open the valve and vents the lower chamber to atmosphere to close the valve. This eliminates the need for a pressure differential across the valve to fully open and close. DWU is currently in the process of standardizing on this valve at other tanks due to the recent issues they've experienced with other valves that do not fully close once the pressure differential across the valve nears zero, as is common as elevated water storage tanks near their full level. Product offerings from multiple major valve manufacturers were reviewed and the Bermad 710-B was the only "off the shelf" valve that appeared to meet the required criteria.

- Requiring the community to install an alternative valve would be inconsistent with public interest, losing the full utilization/capacity of the new storage tank for fire flow needs in the system.
- Poly Inc. staff has assisted other municipal clients in the area with choosing control valves to solve the same problem at their storage tanks and have only found this valve to work correctly under the afore described conditions.



*(Handwritten Signature)*  
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 (Signature)

12/20/2018  
 \_\_\_\_\_  
 (Date)

Elizabeth R. Brant, Project Engineer  
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 (Printed Name and Title of Project Sponsor's Authorized Representative)

This waiver request was submitted to the EPA by the state of Florida. All supporting correspondence and/or documentation from contractors, suppliers or manufacturers included as a part of this waiver request was done so by the recipient to provide an appropriate level of detail and context for the submission. There may be documents with project diagrams, schedules, and supplier correspondence 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 [DWSRFWaiver@epa.gov](mailto:DWSRFWaiver@epa.gov).