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April 8, 2020

Ms. Kelly Green, Administrator  
Water Infrastructure Financing - Finance Division  
Michigan Department of Energy, Great Lakes and Environment (EGLE)  
P.O. Box 30457  
Lansing, MI 48909-7957  
Attention: Karol Patton, Manager EGLE

Dear Ms. Green:

Subject: Availability Waiver Request from Use of American Iron and Steel Requirements in PL-113-76, Drinking Water Revolving Fund (DWRf No. 7461-01), Phase II- 14 Mile Road Transmission Loop Project

The Great Lakes Water Authority (GLWA) would like to apply for a project waiver pursuant to the "American Iron and Steel" requirements for two (2) axial flow control valves to be used for Phase II of the 14 Mile transmission loop project. This phase of the project involves construction of approximately 8 miles of 54-inch-diameter water transmission main between 14 Mile Road and 8 Mile Road in the cities of Novi and Farmington Hills, Michigan.

Per AIS requirements, DWRf assistance recipients are required to use specific domestic iron and steel products that are produced in the United States; however, recipients may receive a waiver if certain circumstances are met. For this project, we are requesting a waiver pursuant to condition number two, "Iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality". Pursuant to the Environmental Protection Agency (EPA) Availability Request, GLWA is providing the attached general project information and Availability Waiver request information to facilitate the waiver review.

Based on the attached information, we are requesting that a waiver for the use of axial flow valves be granted for use on the phase II-14 Mile transmission loop Project. If you have any questions or comments, please contact Sara Mille at (313)-969-4843 (email: [sara.mille@glwater.org](mailto:sara.mille@glwater.org)) or Tim Kuhns at (734) 634-7361 (email: [timothy.kuhns@glwater.org](mailto:timothy.kuhns@glwater.org)) or Francine Duncan-Martin at (313) 964-9489 (email: [Francine.Duncan-Martin@glwater.org](mailto:Francine.Duncan-Martin@glwater.org)).

Thank you in advance for your consideration.

Sincerely,

Sue F. McCormick  
Chief Executive Officer/DWRf Authorized Representative, GLWA

cc: Ms. Cindy Clendenon [clendenonc@michigan .gov]; Jonathan Wheatley, Francine Duncan-Martin, Jacqueline Morgan, Grant Gartrell, Tim Kuhns, Sara Mille

Attachment: General project information and Availability Waiver request information

This waiver request was submitted to the EPA by the state of Michigan. All supporting correspondence and/or documentation from contractors, suppliers or manufacturers included as part of this waiver request was done so by the recipient to provide an appropriate level of detail and context for the submission. Some 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 [DWSRFWaiver@epa.gov](mailto:DWSRFWaiver@epa.gov).

14 MILE ROAD TRANSMISSION MAIN LOOP (PHASE 2)  
PRE-PURCHASE SPECIFICATION PACKAGE  
AXIAL FLOW CONTROL VALVES

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Prepared for  
Great Lakes Water Authority  
March 2020



this specification, shall be signed by an officer of the unit responsibility manufacturer's corporation and shall be notarized. No other submittal material will be processed until a Certificate of Unit Responsibility has been received and has been found to be satisfactory.

## **1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Upon the completion of fabrication, Supplier shall store all valves locally in an area or facility that is accessible by GLWA and the Engineer until the time of installation or up to 245 calendar days from the completion of fabrication.
- B. Valves shall be shipped fully assembled when less than 72 inches. Valves that cannot be shipped fully assembled shall be packed in boxes and properly labeled for assembly. All such devices shall be shipped machined and fitted. No machining of these devices in assembly shall be required.
- C. The valve flange faces and machined surfaces of the pads shall be protected with wooden pieces bolted on with washers. The shipping crates shall be labeled with the weight and incorporate necessary skids and lifting devices for crane slings.
- D. Devices not attached to the valve during shipment shall be packed in boxes and properly labeled for assembly. All such devices shall be shipped machined and fitted. No machining of these devices in assembly shall be required.
- E. The valves shall be drained of all test water and closed before shipment. Valve and appurtenances shall be packaged to protect from moisture that could otherwise cause damage from freezing or rust.
- F. The Engineer will inspect the valve upon delivery to determine that the valve and appurtenances conform to Contract Documents. Failure to meet Contract Documents or the approved shop drawing(s) shall constitute cause for the rejection of the valve. In case a valve or appurtenances are rejected, the rejected product(s) shall be promptly removed from the property at no additional cost to the GLWA. The rejected product(s) shall be promptly replaced by Supplier with product(s) that adhere to the Contract Documents and approved shop drawings at no additional cost to the GLWA.

## **1.06 WARRANTY**

- A. Warranties shall be in accordance with Articles 4 and 13 of the General Condition (Exhibit C) of the Agreement.
- B. Valves shall be warranted to be free from defects in workmanship, design, and materials.
- C. Warranty shall be furnished and endorsed by the valve manufacturer.
- D. A two year warranty good from time of installation of the valve or four years from date of Factory acceptance test whichever occurs first shall be provided. Installation shall be considered complete after installed valve testing and after manufacturer field services checks have been performed and manufacturer has approved installation.

## **PART 2 PRODUCTS**

### **2.01 AXIAL FLOW VALVES**

- A. Subject to compliance with requirements, provide products from one of the following manufacturers:

1. [REDACTED]
  2. Equivalent Product that have been approved by GLWA in writing
- B. Provide valves with materials and coatings in compliance with NSF 61 for all services.
- C. Valve Design:
1. Opening characteristic (i.e. percentage of valve stroke vs percentage of total capacity) shall be linear.
  2. Valve shall be fully suitable for bi-directional pressure control.
  3. Sound pressure level shall not exceed 77 dB(A)
  4. Valve shall achieve bubble-tight shutoff in both directions per ANSI/FCI 70-2 Class VI at full operating pressure.
- D. Materials for valve(s):
1. The requirements of ANSI, ASTM, ASME, or other standards that have been referenced in this section shall govern the physical and chemical characteristics of the valve components. The valve manufacturer shall conform to test requirements or testing procedures when required in the applicable standard.
  2. Valve shall consist of an integrally cast steel body.
    - a. Body
      - 1) ASTM A216 Gr WCC Carbon Steel
      - 2) Internal epoxy lining in compliance with NSF 61
  3. Cage and Piston
    - a. Type 316 Stainless Steel.
  4. Seat:
    - a. PTFE based, spring-loaded double lip seal that is retracted from the trim wall during throttle conditions.
  5. Stem
    - a. Type 316 Stainless Steel.
  6. Valve Bolts and Nuts
    - a. Type 316 Stainless Steel
  7. Packing and Gaskets:
    - a. Packing and gaskets shall be NSF certified and shall be vendor recommended for similar valve applications.
  8. No materials shall contain asbestos.
- E. Valve Construction:
1. Valve(s) shall be Rated for a Working Pressure of 250 psi or greater.
  2. Valve components that contact drinking water shall conform to applicable regulations that limit lead content.
  3. No loading is permitted on valve flange.
  4. End connections:
    - a. Provide Class 150 raised face flanges in accordance with ASME B16.5.
- F. Electric Operators
1. Provide electric actuators in accordance with specification 40 05 57.23. Valve manufacturer shall be assigned with the unit responsibility for supplying an electric actuator that meets the performance requirements of the valve.