NEW MEXICO FINANCE AUTHORITY

March 3, 2025

Jorge Medrano
Environmental Engineer, DWSRF Team
Environmental Protection Agency
Via email dwsrfwaiver@epa.gov

Dear Mr. Medrano,

A Drinking Water State Revolving Loan Fund project funded by recycled funds (Tier II) is requesting a waiver on the American Iron and Steel requirement for the Drinking Water State Revolving Loan Fund. The State of New Mexico, on behalf of the community, is requesting a waiver based on eligible conditions set forth in the AIS final guidance memo 3-20-2014 (AIS Memo).

The AIS Memo states "The assistance recipient may receive a waiver at any point before, during, or after the bid process, if one or more of three conditions is met:

1. Applying the American Iron and Steel requirements of the Act would be inconsistent with the public interest;
2. Iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or
3. Inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent."

The community, Eastern New Mexico Water Utility Authority (ENMWUA), is financing the regionalization project with funding from the Bureau of Reclamation (BOR) and EPA Drinking Water State Revolving Fund (DWSRF) and other State funds.

NMFA on behalf of ENMWUA is requesting a waiver based on 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 for the parts listed below. ENMWUA is requesting waivers from the EPA and the BOR simultaneously on the parts listed below.

- nozzle check valves (V625)
- control valves (V923)
- surge relief valve (V726)

Please direct follow up questions to Todd Johansen tjohansen@nmfa.net or 505-240-3467.

Thank you for your consideration.

Sincerely,

Todd Johansen

Todd Johansen
Senior Program Administrator

Attachments:
Waiver part specifications

2. Type V602 Check Valve 2 Inches and Smaller:
   a. All bronze, threaded cap, threaded ends, swing type replaceable Teflon Disc and bronze disc holder, rated 150 pound SWP, 300 pound WOG.
   b. Manufacturers and Products:
      1) [redacted]
      2) "Or-equal."
3. Type V625 Axial Nozzle Check Valve 16 Inches:
   a. Construction: Axial nozzle style check valve, ASME Class 300 flanges, cast valve body and flanges, ASTM A487 GR CA6NM CI B or ASTM A351 CF8M stainless steel body material, centered and guided solid disk within the inner body, Inconel X-750 spring, 13 percent Chromium 6 percent Nickel stainless steel internal components, rated working pressures up to 720 psi, metal to metal seal with leakage rate of ISO 5208 Class C or better, compliant with NSF 61, and self-contained without the need for external power, dampening devices, or hydraulics.
   b. Working pressure: 240 psi to 350 psi at Intake Pump Station, 280 psi to 310 psi at Caprock Pump Station.
   c. Function: fast closing spring loaded check valve to reduce surge potential in pump shutoff application. Valve shall close in less than 0.1 seconds in pump shutoff condition. Manufacturer shall submit relevant data from test stands or other installations to provide evidence of ability to meet closure rate.
   d. Flows:
      1) Normal flows between 2,250 gpm and 5,000 gpm.
      2) Abnormal flows between 1,200 gpm and 2,250 gpm, but not at risk of surge- any backpressure or closure rate is acceptable in this flow range. Abnormal Flows between 5,000 gpm to 6,000 gpm, but under exceptionally infrequent and controlled conditions, any backpressure less than 1 psi is acceptable in this flow range.
   e. Capacity: Able to pass all normal flows at less than 0.5 psi pressure loss. Cracking pressure: shall not exceed 0.4 psi.
   f. Manufacturers and Products:
      1) [redacted]
      2) [redacted]
      3) "Or-equal."
4. Type V630 PVC Ball/Spring Check Valve 4 Inches and Smaller:
   a. ASTM D1784, Type I, Grade 1 polyvinyl chloride body and ball, stainless steel spring, dual union socket weld ends, rated 150 psi at 73 degrees F, and EPDM seat and seal.
   b. Manufacturers and Products:
      1) [redacted]
      2) [redacted]

d. Designed to open when upstream pressure reaches setpoint; set pressure adjustable from 15 psig to 250 psig, minimum. Factory set pressure setting at 170 psig for W3 lines. Set pressure at 25 psi for location downstream 12” surge relief valve.

[redacted]

6. Type V726 Stainless Steel Axial Surge Relief/Pressure Breaking Valve:
   a. The following valve is expected to require an AIS and BABA waiver:
      1) Service Conditions:
         a) Valve will exist on dead branch service in a conditioned space except when required for overpressure protection. The downstream side of the valve will see nominal static pressures of 2.6 psig vacuum to 3 psig static during normal operation, with approximately 6.8 psi dynamic pressure generated downstream during full flow. The service water is corrosive and requires Type 316 stainless steel for corrosion resistance- no dissimilar metals shall be connected within the wetted portions of the valve. The water is expected to be free of large particulates, but will have approximately 7 ppm of particulates under the 5 micron size, with 90 percent of those particulates below 1 micron. Sensing tubes shall be designed to either allow flushing or be immune from clogging with sediment in the application after long periods of no actuation of the valve. Water temp ranges from 35 degrees F to 70 degrees F, and valve altitude is 4,276 feet above sea level.
         b) The valve shall be suitable for installation with straight pipe runs of under 2 times the diameter upstream and 4 times the diameter downstream and with concentric reducers to the valve body without adverse affecting performance. The valve shall be installed as shown on the Drawings.
         c) The valve shall not have damaging cavitation or vibration occur to the valve itself under any operating conditions in the installed normal operating conditions. The valve shall be designed to prevent cavitation zone attachment to any portion of the valve. The downstream pipe shall not have incipient damaging cavitation, but is allowed to have constant cavitation. Cavitation definitions shall be interpreted per ISA RP75.23, with sigma values determined by manufacturer test data.

2) Construction: Axial Surge Relief Valve, axial flow design; ASME Class 300 flanges; cage-guided piston, pilot-operated, completely self-contained and requiring no external power source(s); valve shall consist of an integrally cast, one-piece steel body; the valve inner body containing the piston movement shall be integrally cast with the outer body; weld-on flanges and welded or fabricated body components shall not be permitted; valve piston (plug) shall be located on the discharge (low pressure) side of the valve.
3) The surge relief valve shall be completely self-contained and require no external power source(s) such as, but not limited to, electric, pneumatic, or hydraulic power.
4) Surge relief design shall be suitable for Peak Shaving (over-pressure duration for a limited period of time). The response time of the valve(s) shall be such that the system is able to maintain the pressure below MATP (maximum allowable transient pressure).
5) Body material Duplex 2205 Stainless Steel. Material of internals 22 percent Chromium duplex stainless steel, with a rated working pressure of 750 psig in accordance with ASME B16.34; flanges per ASME B16.5 RF Raised Face. Materials shall be NSF 61 compliant.
6) Set point pressure shall be 350 psig. Set point accuracy shall be within 1 percent of set pressure.
7) An internal overpressure-protecting device shall be incorporated to act as a secondary independent override (backup pilot), set at a higher set pressure (min 5 percent or 15 psi) than the main set point control, providing redundancy to primary pilot.
8) Flow rate: max 12,000 gpm.
9) The opening characteristic, i.e. the percentage of valve stroke vs. percentage of total capacity, shall be linear.
10) Valve shall achieve tight shutoff with allowable seat leakage per ANSI/FCI 70-2 Class VI, at full operating differential.
11) Any spurious openings of the valve shall not be allowed.
12) Complete pressure, seat leakage and functional testing shall be performed at the factory. Pressure testing shall be in accordance with ASME B16.34. Functional testing shall demonstrate valve opening at set points.
13) Provisions shall be available for set point testing and calibration on-site. A replaceable cartridge filter should be included in the main system for use during calibration and testing.

14) Adjustment nuts, dials, or features used to modulate cracking pressure shall be lockable or include a lockable cap to prevent unauthorized adjustments.

15) [redacted]

7. Type V743 Air and Vacuum Valve 1 Inch to 4 Inches for Vertical Turbine Service:
   a. All Type 316 stainless steel wetted parts construction. No metallic connections or contact between galvanically dissimilar metals. Designed with internal orifice pucks to reduce flow capacity prior to closure to prevent water hammer and valve or seat damage, to remain open for high venting and vacuum relief capacity prior to water ingress. Closure shall be activated based on the venturi principle, with closure activated at 57 cfm for 1-inch valves, 254 cfm for 2-inch valves, and 537 cfm for 3-inch valves. Designed for use on vertical turbine pump applications. Designed with internal screen or baffle to disrupt water column prior to hitting float. In the closed position, provide resilient seat to prevent water leakage while operating under high line pressures.
   b. Rated for 360 psi working pressure, 540 psi test pressure. For Valves on RWLP service, 275 psi working pressure, and configured to form drip tight seat with zero line pressure.
   c. Water side connection- designed for mating to a ASME Class 300 flange for valves 2 inches and above. NPT connection for smaller valves.
   d. Air side NPT or flanged connection for drain/vent pipe.
   e. Size and flow capacities as listed in the Valve Schedule.
   f. Manufacturer:
      1) [redacted]
      2) "Or-equal."
   g. Model: WTR Series C.
8. Type V746 Combination Air Release Valve 1 Inch to 16 Inches:
   a. Suitable for water service, combines operating features of air and vacuum valve and air release valve. Air and vacuum portion to automatically exhaust air during filling of system and allow air to re-enter during draining or when vacuum occurs. Air release portion to automatically exhaust entrained air that accumulates in system.
   b. Valve single body or dual body, air release valve mounted on air and vacuum valve, isolation valve mounted between the dual valves. 1-inch through 3-inch valves with NPT threaded inlet and outlet, 4-inch and larger valves with ASME B16.1 Class 125 flanged inlet and cover outlet.
   c. Provide with short body option, when available.

d. Rated 150 psi working pressure, cast-iron or ductile iron body and cover, stainless steel float and trim, built and tested to AWWA C512. All metal internals to be fusion bonded epoxy coated or Type 316 stainless steel. Provide epoxy lined and coated threaded steel connecting pipe and fittings between larger valve and smaller air release valve. Provide linings and material selection consistent with NSF 61 requirements for potable water service.

e. Manufacturers and Products:

[redacted]

F. Miscellaneous Valves:

a. Type V923 Pressure Breaking Axial Control Valve:

b. The following valve is expected to require an AIS and BABA waiver:

c. Operating Conditions and hydraulic requirements at CP20-PLV-013-01, drain valve at CPS:

1) Valve will exist on dead branch service in a conditioned space except when required for overpressure protection. The valve shall be utilized to drain a pipeline with roughly 2 million gallons of volume. It may also be periodically used for flow recirculation to test pumps or as needed when filling the pipeline. The downstream side of the valve will see nominal static pressures of 2.6 psig vacuum to 3 psig static during normal valve operation, with approximately 2.1 psi dynamic pressure generated downstream during full flow. The service water is corrosive and requires Type 316 stainless steel for corrosion resistance- no dissimilar metals shall be connected within the wetted portions of the valve. The water is expected to be free of large particulates, but will have approximately 7 ppm of particulates under the 5 micron size, with 90 percent of those particulates below 1 micron. Water temp ranges from 35 degrees F to 70 degrees F, and valve altitude is 4,276 feet above sea level.

2) The valve shall be suitable for installation with straight pipe runs of under 2 times the diameter upstream and 4 times the diameter downstream and with concentric reducers to the valve body without adverse affecting performance. The valve shall be installed as shown on the Drawings.

3) Valve shall include an anti-cavitation cage with multi-stage pressure reduction (four concentric layers), capable of fully dissipating the upstream pressure of up to 280 psig to the

downstream pressure of 0 psig (atmospheric) with Zero cavitation performance.

4) Flow capacity: max open CV of at least 240 with a linear stroke capacity characteristic, valve shall be designed to flow at least 2 mgd without cavitation when upstream pressure is sufficient to generate flow.

d. Operating Conditions and Hydraulic Requirements, at Valve IP24-BLV-144-01, Blow Off Valve at IPS Isolation Vault:

1) Valve will exist on dead branch service in a vault. It will be used to drain a segment of the RW1 pipeline and potentially for intake pump station startup and commissioning.

2) Operating function; Modulating/throttling flow control valve, operated for pipeline drainage typically once per year for a 30-minute period. Valve shall function as modulating flow control valve with flow setting and flow "dead band" width (flow variation from setting where valve will not move) setting selected by operator, manually actuated.

a) During commissioning of the Intake Pump Station, the valve may be used for throttling of the intake pumps. If the contractor elects to utilize the valve for this feature, the valve manufacturer shall submit technical criteria on acceptable operating conditions and durations for the valve to be utilized in this manner. Contractor and manufacturer shall guarantee no damage to the valve during this period, and shall replace or modify the valve as necessary to repair any damage from this usage.

3) Normal conditions will see the valve potentially exposed to 335 psig upstream pressures while closed. During full flow, the valve may develop dynamic downstream pressure of 0 psig, with no static backpressure on the valve. Upstream pressure may be up to 335 psi during pump testing, and up to 202 psi when draining the pipeline (but normally expected to be less than 100 psi when draining).

4) Flow range: 0.5 cfs to 9.5 cfs for pipe draining.

5) Maximum operating flow: 10 cfs for pipe draining.

6) Flow range for pump testing: 3.3 cfs to 9.5 cfs. Note flow range for pump testing may exceed 9.5 cfs but not through this valve.

7) The downstream side of the valve will see atmosphere pressure at its location and will be free draining. The service water is corrosive and requires Type 316 stainless steel for corrosion resistance- no dissimilar metals shall be connected within the wetted portions of the valve. The water is expected to be free of large particulates, but will have

approximately 7 ppm of particulates under the 5 micron size, with 90 percent of those particulates below 1 micron. Water temp ranges from 35 degrees F to 70 degrees F, and valve altitude is approximately 3,802 feet above sea level.

8) The valve shall be suitable for installation with straight pipe runs of under 2 times the diameter upstream and 4 times the diameter downstream and with concentric reducers to the valve body without adverse affecting performance. The valve shall be installed as shown on the Drawings.

e. The valves shall not have damaging cavitation or vibration occur to the valve itself under any operating conditions in the installed normal operating conditions. The valve shall be designed to prevent cavitation zone attachment to any portion of the valve. The downstream pipe shall not have incipient damaging cavitation, but is allowed to have constant cavitation. Cavitation definitions shall be interpreted per ISA RP75.23, with sigma values determined by manufacturer test data.

f. Construction: Axial Control Valve; ASME Class 300 flanges; inline, axial flow, cage type control valve; valve shall consist of an integrally cast, one-piece steel body; the valve inner body containing the piston movement shall be integrally cast with the outer body; weld-on flanges and welded or fabricated body components shall not be permitted; valve stem shall have linear transmitting motion connecting to the piston rod by means of a 45-degree linear toothrack transmission mechanism, thus determining piston position and valve opening. NSF 61 compliant.

g. Body material ASTM A487 Gr. CA6NM Cl.B (or Duplex 2205) Stainless Steel. Material of internals 13 percent Chromium 4 percent Nickel (or 22 percent Chromium Duplex) Stainless Steel, with a rated working pressure of 750 psig in accordance with ASME B16.34; flanges per ASME B16.5 RF Raised Face (or: FF Flat Face).

h. The opening characteristic, i.e. the percentage of valve stroke versus percentage of total capacity, shall be linear.

i. The piston and shutoff seals shall be contained within the cage assembly, thus isolating them from interference or damage caused by any debris in the flowing medium.

j. Cage shall contain a PTFE-based, spring-loaded double-lip seal which is retracted from the trim wall during throttling conditions and shall expand out against the piston by means of differential pressure upon valve closure and achieve tight shutoff with allowable seat leakage per ANSI/FCI 70-2 Class VI, at full operating differential.

k. Piston shall be co-axially fully pressure balanced; no additional torque shall be required for seating or unseating.

l. Manufacturer shall document system cavitation index Kcs, defined as (P1-P2)/(P1-Pv), valve cavitation index Kc and Sound Pressure Level (SPL) calculations, where P1 is the upstream absolute pressure and P2 is the downstream absolute pressure, and Pv is assumed to be 0.2 psi, across all stroke positions for the valve.

m. Supplier shall state cavitation index Kc for proposed valve design and system cavitation index Kcs at each operating point, proving 100 percent free of damaging cavitation or cavitation attaching to pipe or valve body over entire flow range. Kc shall be greater or equal to Kcs throughout operating range.

n. Sound pressure level shall not exceed 85 dB(A) at design flow 2 mgd.

o. Valve shall be supplied with type EN 10204-3.1 material certificate for the body casting.

p. Complete pressure, seat leakage and functional testing shall be performed at the factory.

q. Actuator shall be manual handwheel type, with position indicators. Factory install position switches when shown on P&ID.

r. Pressure testing shall be in accordance with ASME B16.34.

s. Valve shall be supplied completely assembled with manual handwheel for modulating service. No gearbox shall be required.

t. Manufacturers and Products:

1) [redacted]

2) "Or-equal."

u. See Part 3, Execution, for additional requirements.

2. Type V940 Solenoid Valve 1/4 Inch to 3/4 Inches:

a. Two-way internal pilot operated diaphragm type, stainless steel spring tube and body, resilient seat suitable for air or water, solenoid coil molded epoxy, NEMA insulation Class F, 120 volts ac, 60-Hz, unless otherwise indicated. Solenoid enclosure NEMA 250, Type 4 unless otherwise indicated. Valve and Body rated to at least 600 psi differential pressure. Size and normal position (when de-energized) as indicated on Valve Schedule.

b. Differential pressure as indicated on Valve Schedule.

c. [redacted]