



5211 West 21st Street North

Wichita, KS 67205

Date: 10/19/2022

Project: Northwest Wichita Water Treatment Facility

Description: Availability of AIS compliant Backflow Preventers over 2" in size.

Wichita Water Partners have been actively searching for American Iron & Steel (AIS) compliant backflow preventers larger than 2" that are needed for the new Northwest Wichita Water Treatment Facility without success. We have reached out to all spec listed manufacturers of backflow preventers, Watts Water Technology (owner of Febco, Ames & Backflow Direct), Zurn Wilkins, Flomatic Corporation, and Apollo Valves, and have received written notation from each that none of the manufacturers make AIS compliant products in the sizes required. Below is a list of Backflow Preventers required for the project, along with their sizes.

Tag Number	BFP Size
5541-NWW-12-BFP-0110	4"
5571-NWW-12-BFP-0110	8"
5571-NWW-12-BFP-0120	8"
5593-NWW-12-BFP-0110	8"
5521-NWW-12-BFP-0110	10"
5521-NWW-12-BFP-0120	10"
5521-NWW-12-BFP-0130	10"
5521-NWW-12-BFP-0140	10"
5552-NWW-12-BFP-0110	8"
5533-NWW-12-BFP-0210	8"
5521-NWW-12-BFP-0220	3"
5712-NWW-12-BFP-0210	3
5521-NWW-12-BFP-0210	3"



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ADMINISTRATION BUILDING BFV – DOES NOT CARRY UNIQUE TAG NUMBER	2-1/2"
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Documentation to support this waiver request is enclosed, it appears that there have been several similar waiver requests approved by the EPA for Backflow Preventers of similar sizes due to the lack of a AIS certifiable product.

Your review of the request would be greatly appreciated. Please let me know if any additional information or documentation would be needed to address this waiver request.

Sincerely,

Evan Menkes

This waiver request was submitted to the EPA by the state of Kansas. 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.

List of Backflow Preventers that will require an AIS Waiver

Item	Description of Materials	Quantity	Unit of Measure	Price	Time of Delivery/Availability	Location of the Construction Project	Name and Address of Proposed Supplier	Justification
5541-NWW-12-BFP-0110	Watts 957 4" Backflow Preventer	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67205	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5571-NWW-12-BFP-0110	Zurn Wilkins 8" 375AST	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5571-NWW-12-BFP-0120	Zurn Wilkins 8" 375AST	1	Each	\$ [REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5593-NWW-12-BFP-0110	Zurn Wilkins 8" 375AST	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5521-NWW-12-BFP-0110	Zurn Wilkins 10" 375ASTOS&Y RPZ W/OS&Y Gate Valves	1	Each	\$ [REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5521-NWW-12-BFP-0120	Zurn Wilkins 10" 375ASTOS&Y RPZ W/OS&Y Gate Valves	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5521-NWW-12-BFP-0130	Zurn Wilkins 10" 375ASTOS&Y RPZ W/OS&Y Gate Valves	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5521-NWW-12-BFP-0140	Zurn Wilkins 10" 375ASTOS&Y RPZ W/OS&Y Gate Valves	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5552-NWW-12-BFP-0110	Zurn Wilkins 8" 375ASTOSY RPZ W/OS&Y Gate Valves	1	Each	\$ [REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5533-NWW-12-BFP-0110	Zurn Wilkins 8" 375ASTOSY RPZ W/OS&Y Gate Valves	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5521-NWW-12-BFP-0210	Zurn Wilkins 3" 375ASTOSY RPZ W/OS&Y Gate Valves	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5521-NWW-12-BFP-0220	Zurn Wilkins 3" 375ASTOSY RPZ W/OS&Y Gate Valves	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
5712-NWW-12-BFP-0210	Zurn Wilkins 3" 375ASTOSY RPZ W/OS&Y Gate Valves	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.
BFP does not carry a unique tag for this location	Zurn Wilkins 2-1/2" 375AST Backflow Preventer	1	Each	[REDACTED]	[REDACTED]	Wichita NWWTF 5211 W 21st St N Wichita, KS 67206	[REDACTED]	Manufacturer does not make AIS compliant backflows in this size.

SECTION 22 11 19 – DOMESTIC WATER PIPING SPECIALTIES: continued

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Procurement Documents, apply to this Section.

1.02 SUMMARY:

- A. This Section includes:
 - 1. Vacuum breakers.
 - 2. Backflow preventers.
 - 3. Water pressure-reducing valves.
 - 4. Balancing valves.
 - 5. Temperature-actuated, water mixing valves.
 - 6. Strainers.
 - 7. Outlet boxes
 - 8. Hose bibbs.
 - 9. Wall hydrants.
 - 10. Post hydrants.
 - 11. Water-hammer arresters.
 - 12. Air vents.
 - 13. Flexible connectors.
- B. Supplier shall review and understand the American Iron and Steel (AIS) Requirements. Iron and steel products must be produced in the United States in a manner that complies with the AIS Requirement and certifications of such production must be provided to the Design-Builder prior to shipment.

1.03 RELATED REQUIREMENTS:

- A. Section 22 11 16 - Domestic Water Piping.
- B. Section 22 45 00 - Emergency Plumbing Fixtures for water tempering equipment.

1.04 REFERENCE STANDARDS:

- A. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- B. American Society of Sanitary Engineering (ASSE):
 - 1. ASSE 1001 - Performance Requirements for Atmospheric Type Vacuum Breakers.
 - 2. ASSE 1003 - Performance Requirements for Water Pressure-Reducing Valves (ANSI).
 - 3. ASSE 1010 - Performance Requirements for Water-Hammer Arresters (ANSI).
 - 4. ASSE 1011 - Performance Requirements for Hose Connection Vacuum Breakers (ANSI).
 - 5. ASSE 1013 - Performance Requirements for Reduced-Pressure-Principle Backflow Preventers and Reduced-Pressure Fire-Protection Principle Backflow Preventers (ANSI).
 - 6. ASSE 1017 - Performance Requirements for Temperature Actuated Mixing Valves for Hot Water Distribution Systems.
 - 7. ASSE 1019 - Performance Requirements for Vacuum Breaker Wall Hydrants, Freeze Resistant, Automatic Draining Type (ANSI).
 - 8. ASSE 1035 - Performance Requirements for Laboratory Faucet Backflow Preventers.

SECTION 22 11 19 – DOMESTIC WATER PIPING SPECIALTIES: continued

- C. American Water Works Association (AWWA):
 - 1. AWWA C550 - Protective Epoxy Interior Coatings for Valves and Hydrants.
 - 2. AWWA C700 - Cold-Water Meters Displacement Type, Bronze Main Case.
 - 3. AWWA C701 - Cold-Water Meters Turbine Type, for Customer Service.
 - 4. AWWA C702 - Cold-Water Meters Compound Type.
 - 5. AWWA C706 - Direct Reading, Remote Registration Systems for Cold-Water Meters.
 - 6. AWWA C707 - Encoder Type Remote Registration Systems for Cold-Water Meters.
 - 7. AWWA C710 - Cold-Water Meters - Displacement Type, Plastic Main Case.
 - D. ASME International (ASME):
 - 1. ASME A112.1.2 - Air Gaps in Plumbing Systems (for Plumbing Fixtures and Water-Connected Receptors).
 - 2. ASME A112.18.1 - Plumbing Supply Fittings.
 - 3. ASME A112.21.3M - Hydrants for Utility and Maintenance Use.
 - 4. ASME B1.20.7 - Hose Coupling Screw Threads, Inch.
 - E. ASTM International (ASTM):
 - 1. ASTM B62 - Specification for Composition Bronze or Ounce Metal Castings.
 - 2. ASTM B88 - Specification for Seamless Copper Water Tube.
 - F. Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. (MSS):
 - 1. MSS SP-80 - Bronze Gate, Globe, Angle and Check Valves.
 - 2. MSS SP-110 - Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends.
 - G. NFPA:
 - 1. NFPA 70 - National Electrical Code.
 - H. NSF International (NSF):
 - 1. NSF 61 - Drinking Water System Components - Health Effects; Sections 1 through 9 (ANSI).
 - 2. NSF 372 – Drinking Water System Components – Lead Content
 - I. Plumbing & Drainage Institute (PDI):
 - 1. PDI-WH 201 - Water-Hammer Arresters.
- 1.05 SUBMITTALS:
- A. Product Data: For each type of product.
 - B. Shop Drawings: For domestic water piping specialties.
 - C. Field quality-control reports.
 - D. Operation and Maintenance Data: For domestic water piping specialties to include in emergency, operation, and maintenance manuals.
 - E. Certificates and Affidavits: Furnish prior to shipment. Include the following:
 - 1. American Iron and Steel (AIS) Certifications.
 - a. If Supplier is unable to meet AIS requirements, Supplier shall disclose this information to Design Builder in their proposal.

PART 2 - PRODUCTS

- 2.01 GENERAL REQUIREMENTS FOR PIPING SPECIALTIES:
 - A. Potable-water piping, and components shall comply with NSF 61 and 372.
- 2.02 PERFORMANCE REQUIREMENTS:
 - A. Minimum Working Pressure for Domestic Water Piping Specialties: 125 psig, unless otherwise indicated.

SECTION 22 11 19 – DOMESTIC WATER PIPING SPECIALTIES: continued

2.03 VACUUM BREAKERS:

- A. Pipe-Applied, Atmospheric-Type Vacuum Breakers:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Ames Fire & Waterworks; a division of Watts Water Technologies, Inc.
 - b. Apollo Valves
 - c. FEBCO; a division of Watts Water Technologies, Inc.
 - d. Watts; a division of Watts Water Technologies, Inc.; Watts Regulator Company.
 - e. Zurn Industries, LLC; Plumbing Products Group; Wilkins Water Control Products.
 - f. Or Engineer-Approved Equal.
 - 2. Standard: ASSE 1001.
 - 3. Size: NPS 1/4 to NPS 3, as required to match connected piping.
 - 4. Body: Bronze.
 - 5. Inlet and Outlet Connections: Threaded.
 - 6. Finish: Rough bronze.
- B. Hose-Connection Vacuum Breakers:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Apollo Valves
 - b. MIFAB, Inc.
 - c. Watts; a division of Watts Water Technologies, Inc.; Watts Regulator Company.
 - d. Woodford Manufacturing Company; a division of WCM Industries, Inc.
 - e. Zurn Industries, LLC; Plumbing Products Group.
 - f. Or Engineer-Approved Equal.
 - 2. Standard: ASSE 1011.
 - 3. Body: Bronze, nonremovable, with manual drain.
 - 4. Outlet Connection: Garden-hose threaded complying with ASME B1.20.7.
 - 5. Finish: Chrome or nickel plated.
- C. Laboratory-Faucet Vacuum Breakers:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Apollo Valves
 - b. Watts; a division of Watts Water Technologies, Inc.; Watts Regulator Company.
 - c. Woodford Manufacturing Company; a division of WCM Industries, Inc.
 - d. Zurn Industries, LLC; Plumbing Products Group; Wilkins Water Control Products.
 - e. Or Engineer-Approved Equal.
 - 2. Standard: ASSE 1035.
 - 3. Size: NPS 1/4 or NPS 3/8 matching faucet size.
 - 4. Body: Bronze.
 - 5. End Connections: Threaded.
 - 6. Finish: Chrome plated.

2.04 BACKFLOW PREVENTERS:

- A. Reduced-Pressure-Principal Backflow Preventers:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Ames Fire & Waterworks; a division of Watts Regulator Co.
 - b. Apollo Valves
 - c. FEBCO; SPX Valves & Controls.

SECTION 22 11 19 – DOMESTIC WATER PIPING SPECIALTIES: continued

- d. Flomatic Corporation.
- e. Watts Water Technologies, Inc.
- f. Wilkins; a Zurn company.
- g. Or Engineer-Approved Equal.
2. Body:
 - a. NPS 2 and Smaller: Bronze.
 - b. NPS 2-1/2 and Larger: Cast iron, or steel.
 - c. Cast iron and steel body backflow preventers shall be provided with interior lining complying with AWWA C550 or that is FDA approved.
3. Standards: ASSE 1013 or AWWA C511.
4. Operation: Continuous-pressure applications.
5. Pressure Loss: 12 psig maximum, through middle 1/3 of flow range.
6. End Connections: Threaded for NPS 2 and smaller; flanged for NPS 2-1/2 and larger.
7. Accessories:
 - a. Valves: Ball type with threaded ends on inlet and outlet of NPS 2 and smaller; OS&Y gate type with flanged ends on inlet and outlet of NPS 2-1/2 and larger.
 - b. Air-Gap Fitting: ASME A112.1.2, matching backflow preventer connection.
8. Capacities and Characteristics: See Schedule on Drawings.
9. Provide with non-rising stems.

2.05 WATER PRESSURE-REDUCING VALVES:

- A. Water Regulators:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Cash Acme; a division of Reliance Worldwide Corporation.
 - b. Apollo Valves
 - c. Watts; a division of Watts Water Technologies, Inc.; Watts Regulator Company.
 - d. Zurn Industries, LLC; Plumbing Products Group; Wilkins Water Control Products.
 - e. Or Engineer-Approved Equal.
 2. Standard: ASSE 1003.
 3. Pressure Rating: Initial working pressure of 150 psig.
 4. Body: Bronze with chrome-plated finish for NPS 2 and smaller; cast iron with interior lining that complies with AWWA C550 or that is FDA approved for NPS 2-1/2 and NPS 3.
 5. Valves for Booster Heater Water Supply: Include integral bypass.
 6. End Connections: Threaded for NPS 2 and smaller, flanged for NPS 2-1/2 and larger.
 7. Capacities and Characteristics: See Drawings.

2.06 BALANCING VALVES:

- A. Copper-Alloy Calibrated Balancing Valves:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Armstrong International, Inc.
 - b. ITT Corporation; Bell & Gossett Div.
 - c. NIBCO, Inc.
 - d. TACO, Incorporated.
 - e. Watts; a division of Watts Water Technologies, Inc.; Watts Regulator Company.
 - f. Or Engineer-Approved Equal.