

MARINA COAST WATER DISTRICT

January 5, 2021

Mr. Jody Hack
Water Resources Control Engineer
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

NOTE: The 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 CWSRFWaiver@epa.gov.

SUBJECT: Request for Waiver of American Iron and Steel (AIS) Requirement for: 4-inch, 6-inch, and 10-inch Double Check Valve Backflow Prevention Assemblies and 6-inch and 8-inch Reduced Pressure Principle Backflow Prevention Assemblies for Clean Water State Revolving Fund Project No. C-06-8184-120, Marina Coast Water District - Regional Urban Water Augmentation Project – Distribution Mains

Dear Mr. Hack:

The purpose of the Marina Coast Water District (MCWD) Regional Urban Water Augmentation Project (RUWAP) is to convey advanced treated water from Monterey One Water's (formerly called the Monterey Regional Water Pollution Control Agency) advanced water treatment plant for urban irrigation within the MCWD service area as well as direct injection into the groundwater basin for indirect potable reuse. The project is located in Monterey County, California. RUWAP will alleviate the long standing water supply challenges in coastal Northern Monterey County including seawater intrusion and excessive surface water diversions.

MCWD is requesting a project specific waiver of the AIS requirements for: 4-inch, 6-inch, and 10-inch Double Check Valve Backflow Prevention Assemblies and 6-inch and 8-inch Reduced Pressure Principle Backflow Prevention Assemblies specified on the MCWD RUWAP Distribution Mains project because no known domestic manufacturers produce an alternate that meets the project's technical specifications. The MCWD RUWAP Distribution Mains project includes over five (5) miles of 8-inch diameter to 16-inch diameter ductile iron and polyvinyl chloride recycled water pipeline. Backflow prevention assemblies on the distribution pipelines have been required by the California Division of Drinking Water to prevent recycled water backflow into the potable water system.

This waiver request is for twelve (12) backflow prevention assemblies and includes:

Design Drawing	Location	Backflow Device Type	Number of Devices	Device Size (in)
CD01	Beach Road	Double Check Valve Backflow Prevention Assembly	1	6
CD01	Carmel Avenue	Double Check Valve Backflow Prevention Assembly	1	4

CD02	Marina Heights Drive	Double Check Valve Backflow Prevention Assembly	1	10
CD02	9th Street	Double Check Valve Backflow Prevention Assembly	1	4
CD03	Coe Avenue	Double Check Valve Backflow Prevention Assembly	1	6
CD04	5th Avenue near 8th Street	Reduced Pressure Principle Backflow Prevention Assembly	1	6
CD05	5th Avenue between 8th Street and Inter-Garrison Road	Reduced Pressure Principle Backflow Prevention Assembly	1	6
CD05	5th Avenue near Inter-Garrison Road	Reduced Pressure Principle Backflow Prevention Assembly	1	6
CD06	Engineer Lane	Reduced Pressure Principle Backflow Prevention Assembly	1	6
CD06	General Jim Moore Boulevard	Reduced Pressure Principle Backflow Prevention Assembly	1	6
CD07	Blackhorse Golf Course	Reduced Pressure Principle Backflow Prevention Assembly	2	8

The project bid documents included a provision for compliance with AIS requirements, which are included as Attachment 1.

During the submittal process, the Contractor [REDACTED] or it's Material Supplier [REDACTED] was unable to locate AIS compliant backflow prevention assemblies. In addition, the Engineer [REDACTED] was subsequently unable to locate AIS compliant backflow prevention assemblies. Letters from the Contractor's Material Supplier and Engineer are included as Attachment 2.

The project technical specification for backflow prevention assemblies is included as Attachment 3.

If you have further questions, please contact me at [REDACTED] or MWegley@mcwd.org.

Sincerely,



Michael Wegley, PE
District Engineer
Marina Coast Water District

Attachments:

1. AIS compliance form from bid documents.
2. Letters from the Contractor's Material Supplier and Engineer requesting AIS Waiver
2. Project technical specification for backflow prevention assemblies

SECTION 15114

CHECK VALVES

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes: Check valves.
- B. As specified in Section 15110 - Common Work Results for Valves.

1.02 REFERENCES

- A. American Society of Mechanical Engineers (ASME):
 - 1. B16.1 - Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250.
 - 2. B16.5 - Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24 Inch Standard.
- B. American Water Works Association (AWWA):
 - 1. C508 - Standard for Swing-Check Valves for Waterworks Service 2 Inch Through 24 Inch NPS.
- C. ASTM International (ASTM):
 - 1. A126 - Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings.
 - 2. A313 - Standard Specification for Stainless Steel Spring Wire.
 - 3. A536 - Standard Specification for Ductile Iron Castings.
 - 4. B582 - Standard Specification for Nickel-Chromium-Iron-Molybdenum-Copper Alloy Plate, Sheet, and Strip.
 - 5. B584 - Standard Specification for Copper Alloy Sand Castings for General Applications.

1.03 SYSTEM DESCRIPTION

- A. Design requirements:
 - 1. Check valves: When not otherwise specified as indicated on the Drawings, provide check valves suitable for service as follows:
 - a. In either horizontal or vertical position.
 - b. Suitable for service working pressures up to 175 pounds per square inch gauge.

1.04 SUBMITTALS

- A. Submit as specified in Section 01330 - Submittal Procedures.
- B. Product data: As specified in Section 15110 - Common Work Results for Valves.

- C. Commissioning submittals:
 - 1. Provide Manufacturer's Certificate of Installation and Functionality Compliance.

1.05 WARRANTY

- A. Provide warranty as specified in Section 00 72 00 - Standard General Conditions of the Construction Contract.

PART 2 PRODUCTS

2.01 DOUBLE CHECK VALVE ASSEMBLY

- A. The Double Check Backflow Prevention Assembly shall be certified to NSF/ANSI 61, ASSE® Listed 1015, and supplied with full port gate valves.
- B. The main body and access cover shall be epoxy coated ductile iron (ASTM A536).
- C. The seat ring and check valve shall be NORYL™.
- D. The stem shall be stainless steel (ASTM A276).
- E. The seat disc elastomers shall be EPDM.
- F. The checks shall be accessible for maintenance without removing the device from the line.
- G. The gate valves shall be OS & Y gate valves.
- H. Include a repair kit accessory with each double check detector assembly.
- I. Manufacturers, or equal:
 - 1. [REDACTED]

PART 3 EXECUTION

3.01 INSTALLATION

- A. Check valves:
 - 1. Install with proper orientation of flow direction arrow on valve body.

3.02 FIELD APPLIED COATING OF VALVE EXTERIOR

- A. Match color and be compatible with manufacturer's coating system and as specified in Section 09960 - High-Performance Coatings:
 - 1. When shop applied finish coating matches field applied coating on adjacent piping, touch up shop coating in damaged areas in accordance with instructions recommended by the paint manufacturer.
 - 2. When shop applied coating does not match field coating on adjacent piping, or when damage has occurred to the shop applied coating that requires more than touchup, blast clean valve surfaces or utilize other surface preparation

recommended by the manufacturer of the coating material and apply the coating system used for coating adjacent piping.

3.03 COMMISSIONING

- A. Manufacturer services:
 - 1. Provide certificates:
 - a. Manufacturer's Certificate of Installation and Functionality Compliance.
- B. Functional testing:
 - 1. Valves:
 - a. Test witnessing: Non-Witnessed.
 - b. Conduct pressure and leak test, as specified in Section 15110 - Common Work Results for Valves.

END OF SECTION



MARINA COAST WATER DISTRICT

February 8, 2021

Mr. Jody Hack
Water Resources Control Engineer
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

SUBJECT: Request for Waiver of American Iron and Steel (AIS) Requirement for 4-inch, 6-inch, and 10-inch Double Check Valve Backflow Prevention Assemblies and 6-inch and 8-inch Reduced Pressure Principle Backflow Prevention Assemblies for Clean Water State Revolving Fund Project No. C-06-8184-120, Marina Coast Water District - Regional Urban Water Augmentation Project – Distribution Mains

Dear Mr. Hack:

This letter provides additional information to supplement the January 5, 2021 letter about this same subject. The District and District's Project engineer performed additional outreach to domestic suppliers of backflow devices and did not find any domestic suppliers that meet the project technical specifications. Through email communications, the EPA requested the District perform supplier outreach to [REDACTED]. This outreach was performed (see attached letter from the Project engineer) and found that these suppliers either do not supply AIS compliant backflow devices or the backflow devices do not meet the Project technical specifications.

MCWD is requesting a project specific waiver of the AIS requirements for 4-inch, 6-inch, and 10-inch Double Check Valve Backflow Prevention Assemblies and 6-inch and 8-inch Reduced Pressure Principle Backflow Prevention Assemblies

If you have further questions, please contact me at [REDACTED] or DWilcox@MCWD.org

Sincerely,

Don Wilcox, PE
Senior Engineer
Marina Coast Water District

Attachments:

1. February 5, 2021 Letter from Carollo Engineers

February 5, 2021

Michael Wegley, District Engineer
Marina Coast Water District
920 2nd Avenue, Suite A
Marina, CA 93933

Subject: Regional Urban Water Augmentation Project Distribution Mains - Iron and Steel Products not Produced in the United States – 4-inch, 6-inch, and 10-inch Double Check Valve Backflow Prevention Assemblies and 6-inch and 8-inch Reduced Pressure Principle Backflow Prevention Assemblies - Follow-up

Dear Mr. Wegley:

The purpose of this letter is to provide supplemental information on the availability of American Iron and Steel (AIS) compliant backflow valves for the Marina Coast Water District's (District) Regional Urban Water Augmentation Project RUWAP Distribution Mains Project (Project).

Background

The Project requires 4-inch, 6-inch, and 10-inch Double Check Valve Backflow Prevention Assemblies (DC) and 6-inch and 8-inch Reduced Pressure Principle Backflow Prevention Assemblies (RP). Carollo has been unable to locate domestically produced products that met the project specifications. We received information forwarded from the District that the US EPA Office of Wastewater Management identified two manufacturers (Apollo and MIFAB) that may produce domestically made backflow devices and a request to look into those manufacturers.

Evaluation

██████ was contacted and the inside technical sales representative confirmed in writing that ██████ does not manufacture DC and RP backflow devices that are AIS compliant.

██████ was contacted and confirmed in writing that ██████ does not manufacture DC and RP backflow devices that are AIS compliant. However, ██████ can supply 4-inch DC, 6-inch DC, and 6-inch RP backflow devices with gate valves that meet AIS requirements if the DC and RP device are supplied with domestically made gate valves (by ██████) on each side of the DC and RP device.

After a technical review of the Project specifications, the ██████ DC and RP devices were found to not meet the project specifications. The ██████ devices have stainless steel valve bodies while the Project technical specifications require the valve bodies be epoxy coated ductile iron in accordance with ASTM A536. In addition, the ██████ devices have silicone seats while the Project technical specifications require the seats to be ethylene propylene diene monomer (EPDM).

This finding is also consistent with the February 5, 2019 AIS Waiver from the EPA to the City of Kearney, NE.

Therefore, the DC and RP backflow devices required by the Project technical specifications have still not been found to be available domestically.

Michael Wegley, District Engineer
Marina Coast Water District
February , 2021

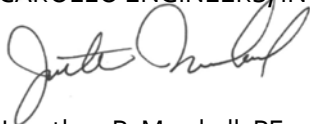
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Recommendation to Obtain AIS Waiver Request

Given our efforts to identify AIS compliant valves, in addition to efforts by the Contractor and Material Supplier, Carollo recommends the District continue to pursue obtaining an AIS waiver request for these valves.

Sincerely,

CAROLLO ENGINEERS, INC.



Jonathon P. Marshall, PE
Project Manager

Enclosures: Email communications from [REDACTED]