STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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December 19, 2024

Andrew D. Sawyers, Director
Office of Wastewater Management
U.S. Environmental Protection Agency
1201 Constitution Ave NW
Washington, D.C 20004

NOTE: Information in this waiver may have been redacted or removed due to issues of proprietary business information or incompatibility with Federal accessibility requirements. To request the information redacted for purposes of accessibility requirements, please email CWSRFWaiver@epa.gov.

Subject: CWSRF AIS Availability Waiver Request for City of Saco, Maine

Dear Mr. Sawyers:

The purpose of this letter is to request a project waiver pursuant to the "American Iron and Steel" (AIS) requirements of the Clean Water Act (CWA) Section 608 under the authority of Section 608(c)(2) for nine (9) knife gate valves ranging from 10" to 24" in diameter from [redacted] proposed for use in the City of Saco's Water Resource Recovery Facility (WRRF) Upgrades project located in the City of Saco, Maine. The project owner, the City of Saco, has requested this waiver because, through consultation with their engineering consultant and construction manager, they found that the use of domestically produced knife gate valves would have a detrimental effect on the critical path for the project and would likely result in additional costs to the city due to the need to extend the project by up to several months. Additional information regarding this request can be found in the following sections.

Project Description

The City of Saco is currently in the process of doing a major upgrade to their WRRF in order to make the WRRF resilient to the effects of aging infrastructure, flooding from weather events, and hydraulic back-ups to facility processes, as well as to make sure the facility is ready for anticipated future license requirements and has additional treatment capacity available as the city continues to grow. Additionally, this upgrade will help to greatly alleviate the city's remaining combined sewer overflow issues as it will both increase the WRRF's peak hourly flow and add storage for when the peak hourly flow is exceeded, with the option to add additional storage, if needed.

The project consists of construction of a new headworks building with new screening and grit removal equipment, construction of an influent pump station and force main to pump flows up to three new [redacted] treatment tanks, construction of a new process and electrical building that will house the [redacted] system, electrical, new tertiary filters, and new UV disinfection system, and an upgrade from rotary presses to centrifuges for sludge dewatering. Additionally, this project will raise the grade of most of the site and portions of Front Street to 12 feet to protect the facility against flooding and preserve access to the site during flooding events. As part of this

project the facility will need new knife gate valves to have the ability to isolate the influent pump station for maintenance and repairs.

Project Location

The City of Saco's WRRF is located at 68 Front Street in the City of Saco, with work also taking place along Front Street and on the site of a former city maintenance garage. The location of the site is shown in Figure 1.

Description of the Foreign Construction Material

The plans and specifications require utilization of nine (9) knife gate valves in and around the influent pump station to allow for isolation of the pump station. The knife gate valves proposed for use range in size from 10" to 24" in diameter.

Time of Delivery and Availability

Per the attachments to this letter the time of delivery and availability for non-domestically produced knife gate valves is 2-3 weeks from the date the products are ordered. Time of delivery and availability for domestically produced knife gates valves is 26 weeks from the date the products are ordered.

Name and Address of the Proposed Supplier

The proposed supplier is:

[redacted]

Detailed Justification for the Use of Foreign Construction Materials

The owner of the project, the City of Saco, requires the ability to shutoff flow and fully isolate the new influent pump station to perform routine maintenance and make repairs. Although originally specified as plug valves during bidding, the design was changed to knife gate valves after consultation with the City of Saco's construction manager to reduce the risk of freezing and provide better access and operation. Although the City of Saco, their consultant, and their construction manager did locate a domestic supplier of knife gate valves, the supplier indicated that the current lead time for domestically produced valves is 26 weeks vs. 2-3 weeks for non-domestically produced knife gate valves from the same supplier. The construction manager indicated that the long lead time for domestically produced knife gate valves is likely to have a negative impact on the critical path for the project, which would delay the project and increase costs for the owner.

Documentation of the Assistance Recipient's Efforts to Find Available Domestic Suppliers (Description of Process for Identifying Suppliers and a List of Contacted Suppliers)

The City's consultant and construction manager did find a domestic supplier, [redacted], but the lead time for domestically produced knife gate valves is 26 weeks, compared to 2-3 weeks for non-domestically produced knife gate valves. The construction manager anticipates that the long lead time for domestically produced knife gate valves is likely to have a negative impact on the critical path for the project.

Project Schedule

Work on the project began March 8, 2024. The current dates for Substantial Completion and Final Completion are December 13, 2026, and March 8, 2027, respectively.

Relevant Excerpts from Project

Key documents, figures, and correspondence are attached.

Thank you for reviewing this availability waiver request for the City of Saco. If you have any questions or need any additional information, please feel free to contact me at [redacted] or jonthan.e.rice@maine.gov.

Sincerely,

Jonathan E. Rice

Jonathan E. Rice, P.E.
Environmental Engineer
Division of Water Quality Management
Maine Department of Environmental Protection

Encl.: Waiver Request Memo from City of Saco
Project Schedule
Specification Section 15110 (Project Specification for valves)
Email from Knife Gate Valve Supplier Re: Lead Times
Figure 1 (Project Location)

[redacted]

b. Gear ratios shall be selected by the valve manufacturer to ensure that the maximum operating effort is 25 lbs at the design head.

c. Minimum gear ratio shall be 2:1.

d. Gearboxes shall have a cast iron or ductile iron housing, a bronze lift nut, steel gears and a stainless steel input shaft.

e. Ball or roller bearings shall support the lift nut and input shaft.

f. The housing shall be grease lubricated and permanently sealed.

g. Handwheels shall be provided.

G. Floorstands and Wall Brackets

1. Floorstands shall be mounted to the concrete or mounted to a wall bracket unless otherwise shown on the Contract Drawings.

2. All floorstands and wall brackets shall be fabricated from stainless steel.

3. The base plate, adaptor plate and gussets shall be minimum 1/2-inch thick.

H. Anchorage

1. Anchor bolts and wall thimble studs shall be 316 stainless steel, fully threaded and shall have a minimum diameter of 1/2-inch.

2. Anchor bolts shall be of the epoxy type.

2.14 KNIFE GATE VALVES

A. Knife Gate Valves, 3 inch and Larger - Class 150, mild steel flanges, yoke assembly and hand wheel. Valves shall have stainless steel wetted parts including gate, body seat, body, chest, stem guide ring, and packing gland bolts or studs. Stainless steel lined valves are not acceptable. Packing gland shall be braided type held in place with self-locking nuts. Knife gate valves 8 inch and larger shall be furnished with chest and centerline buttons; valves less than 7 inch shall have chest buttons. Valves shall be two-way shut off, drip tight with O-ring seats suitable for 150 psi unseating pressure.

B. Knife gate valves shall be manufactured by [redacted]

2.15 FINISHES

A. Surface preparation shall be work of this Section and shall be performed in accordance with Section 09900.

B. Exterior of valves shall be primed and finish painted in accordance with Section 09900.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine valve interior through the end ports for cleanliness, freedom from foreign matter, and corrosion. Remove special packing materials, such as blocks used to prevent disc movement during shipping and handling.