Please find below all relevant information for a project-specific AIS waiver for <u>Ductile Iron (DI) backup flanges</u> used to couple the stainless-steel piping to DI flanged pipe or fittings. The material is for a DWSRF project in St. Johnsbury, VT. Vermont ANR Water Infrastructure Division (WID) have reviewed the information submitted on behalf of the Owner by the consulting Engineer and concur with the request for a project-specific waiver for this material specifically due to lack of domestically certified material. Please note that the consulting engineer has determined this material to be "not incidental" and therefore not eligible for the de minimis waiver.

- <u>Description of the foreign and domestic construction materials:</u> Ductile iron backup flanges to attach stainless steel process piping to ductile iron pipe, fittings, or valves.
- Unit of measure: Each
- Quantity: 45 each for 6-inch, 14 each for 8-inch, 3 each for 10-inch, and 1 each for 12-inch
- •
- <u>Time of delivery or availability</u>: Available upon request
- <u>Location of the construction project:</u> St. Johnsbury, Vermont

| • | | | |
|---|--|--|--|
| | | | |

A detailed justification for the use of foreign construction materials: Several vendors
including the ones mentioned below have been contacted to see if they can supply DI
backup flanges that meet the AIS requirements as mandated in EPA's State Revolving Fund
Programs. The ones indicated below, say they cannot.



Availability:

The General Contractor, at the direction of the Consulting Engineer (), on behalf of the Owner has undertaken a comprehensive search to find any DI backup flanges that meet the American Iron and Steel requirements. Of specific note in this case, it is not 'availability' of the product, the GC is reporting that the product is a readily available, but being an "off the shelf' item, that none of their suppliers will certify where the material has been manufactured, noting "It may be American Made, we just will not certify that it is". The VT WID also conducted a cursory online search for DI backup flanges being noted as 'AIS-certified', and could find none noted as such.

Please let me know if you have any additional questions or if an element of this request appears to be absent. I look forward to your response on behalf of the stakeholders in this project.

Sincerely,

Don

Don C Haddox (he/him) | Construction Engineer

Vermont Agency of Natural Resources | Department of Environmental Conservation

Water Investment Division, Infrastructure Engineering Section

1 National Life Dr, Davis 3 | Montpelier, VT 05620-3901

802-760-0370

don.haddox@vermont.gov

Construction website: https://dec.vermont.gov/water-investment/water-financing/srf/srfstep3

For your convenience: my daily schedule is mainly composed of a teleworking environment allowing me to be available by phone or email during any normal business hours, as well as in-person meetings by request.

"This waiver request was submitted to the EPA by the state of Vermont and applies only to the project in the subject line. 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."

This waiver request was submitted to the EPA by the state of Nevada and applies only to the project in the subject line. 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.

with ASTM A312, ASME SA312 in Type 304L stainless steel. Pipe shall be manufactured to nominal pipe and shall have the following nominal wall thicknesses:

| Nominal Pipe | Schedule/Gauge/Plate | Nominal Wall |
|---------------|----------------------|--------------------|
| Size (inches) | | Thickness (inches) |
| 3-4" | Sch. 10 | .12" |
| 6" | Sch. 10 | .134" |
| 8" | Sch. 10 | .148" |
| 10" | Sch. 10 | .165" |
| 12" | Sch. 10 | .180" |

Fittings shall be butt weld type manufactured in accordance with ASTM A403 of the same raw material and in the same thicknesses as the pipe. Long radius elbows up to 24" diameter shall be smooth flow. All short radius, special radius and reducing elbows and long radius elbows greater than 24" diameter shall be of mitered construction. Reducers shall be straight tapered, cone type. Tees, crosses, laterals and wyes shall be shop fabricated from pipe.

 SS Flanges: Flanged pipe ends shall be made up of type 316L stainless steel slip-on-type rolled angle face rings and primed ductile iron back-up flanges drilled to ANSI 161 Class 125 standard and supplied with the following nominal thicknesses.

| Nominal Pipe Size (inches) | Flange Thicknesses (inches) | | |
|----------------------------|-----------------------------|--|--|
| 2/2 1-3 | 7/8" 1/2" 000 #1 | | |
| 314 | 15/16" 9/14 | | |
| 8 <-10 | 1Ava" 5/8" | | |
| 10 12 | 1/3/16" 3/4" | | |
| 12 | 1 3/8" | | |

- Stainless Steel Couplings: The piping will be shop prepared for pipe couplings where shown on the Drawings or specified.
- Stainless Steel Joints: Flanges shall be provided, as a minimum requirement, at all flanged valves, meters, couplings and other equipment.
- All other joints required for shipping, handling and installation of the piping spools shall be field welds or as specified.
- I. Welded Black Steel Piping:
 - 1. Welded Black Steel Piping shall meet ASTM A106.
- J. Escutcheon Plates: Furnish on all pipe penetrations including walls, floors and piping.