

## **Request for Public Comment: Stainless-Steel Nuts and Bolts used in Pipe Couplings, Restraints, Joints, Flanges and Saddles for State Revolving Fund (SRF) Projects**

The Short-Term National Product Waiver for Stainless-Steel Nuts and Bolts used in Pipe Couplings, Restraints, Joints, Flanges and Saddles ([www.epa.gov/sites/production/files/2017-01/documents/ss\\_waiver\\_extension\\_1\\_18\\_17\\_signed508.pdf](http://www.epa.gov/sites/production/files/2017-01/documents/ss_waiver_extension_1_18_17_signed508.pdf)) expires on February 18, 2018. This short-term waiver permits the use of non-domestic stainless-steel nuts and bolts in bolting-type pipe couplings, flanges, restraints, joints, and saddles in iron and steel products for projects funded by the Clean Water or Drinking Water SRF. The original short-term waiver ([www.epa.gov/sites/production/files/2015-09/documents/short-term-natl-waiver-for-ss-nuts-bolts-021815.pdf](http://www.epa.gov/sites/production/files/2015-09/documents/short-term-natl-waiver-for-ss-nuts-bolts-021815.pdf)) provided details regarding the specific types of products covered by this waiver as well as the rationale for issuance of the original waiver, which was based on a lack of identified availability of domestically manufactured stainless-steel fasteners.

The original one-year waiver was renewed twice (February 2016 and January 2017). For the original approval and each renewal, the EPA conducted national market research on the domestic supply of stainless-steel nuts and bolts for the products of interest and was unable to gather sufficient evidence of adequate domestic supply of stainless-steel fasteners. In each renewal period, the EPA learned of slight increases in potential domestic supplies.

For the current period, the EPA reassessed the domestic manufacturing capacity and potential for domestic supply of stainless-steel nuts and bolts that would be needed to meet the demands of SRF projects. The results of this reassessment are summarized herein, and the EPA is soliciting public comment on its researched assessment of the domestic capacity of stainless-steel fasteners for the bolting-type products of interest in order to determine whether the short-term waiver should be extended.

### Current Market Supply and Potential Capacity of Stainless-Steel Fastener Manufacturers

The EPA updated and expanded its market research on fasteners of interest including stainless-steel nuts and bolts used in pipe couplings, pipe restraints, expansion joints, dismantling joints, pipe flanges, flange adaptors, and pipe repair or service saddles. In addition to common hex nuts and straight bolts, specialty products of interest include: threaded U-bolts used as part of a pipe saddle; restraint rods in bolted pipe restraints (that is, the connecting rod between a ring on the bell of one pipe to the ring on the barrel of another pipe); joint harness tie bolts; threaded hook rods in adjustable side beam clamps and top beam clamps; and pipe hanger rods (that is, the threaded rod used to attach a pipe hanger to the ceiling).

The EPA contacted manufacturers of the referenced fasteners as well as suppliers of domestic stainless-steel wire/bar stock that could be identified by the Agency. For a full list of companies contacted by EPA, see Table 1.

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The EPA's market research identified two factories with potential capacity to significantly expand production of domestic stainless-steel fasteners. These two manufacturers, which EPA visited, do not currently produce sufficient quantities of fasteners to support a national supply. However, representatives of the two factories both stated to the EPA that they could significantly increase their stainless-steel fastener production within 6 months to one year, should the demand increase. At present, both factories operate single, partial shifts on only a portion of available equipment. Hiring additional shifts, increasing throughput on existing equipment, adding new equipment, and utilizing unused production lines could increase domestic supply of the stainless-steel fasteners of interest by two- to three-fold according to representatives of each manufacturer.

The EPA's market research has identified, but not verified with field visits, additional domestic manufacturing potential at two other domestic fastener plants. Responses indicate that they have capacity to meet additional demand; however, EPA has limited additional information on these factories.

The EPA contacted one large stainless steel production mill and response from this mill indicated that there is adequate capacity to supply additional domestic stainless-steel "long product" (wire and bar) for the fastener industry.

The EPA revisited several unresolved questions from past market research. One question involves whether water and wastewater products of interest require strain hardened stainless-steel. In general, the EPA learned that strain hardening is required for certain corrosive soil environments and that this is a specialty application for the products in question. According to the EPA's discussions with fastener manufacturers, strain hardening is not a limiting step for manufacturing, as ample services and unused capacity exist for conducting the activity domestically. Another unresolved question from past research concerns whether fasteners used in the products of interest must be hot-forged due to their size or whether cold-headed production is an option. The EPA learned that there is some debate about the largest size cold-headed products that can be reasonably produced. Some manufacturers claim that ¾" diameter products are the maximum, while others show that up to 1-¼" products may be cold-headed. Nonetheless, the EPA has learned that sizes of products used in the majority of water and wastewater applications for the products of interest are ¾" variety and smaller. Therefore, based on current research, the EPA does not view the manufacturing method (hot-forge or vs. cold-headed) as an influencing factor in general fastener selection for water and wastewater products. However, specialty products may be selective between the two methods.

The EPA does not possess an estimate of the national demand for stainless-steel fasteners for products of interest. However, the EPA did contact product users of stainless-steel fasteners as well as industry associations. Input from manufacturers of couplings, flanges, and restraints that use stainless-steel fasteners discussed in the waiver generally expressed concern that there is currently an inadequate supply of domestic fasteners to meet their needs in a timely manner.

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### Solicitation of Public Comment

The EPA is soliciting input from the public on its research presented herein. Specific questions for which EPA requests public input include the following:

- 1) What time frame would the affected product manufacturers require in order to scale up to meet potential demand should the waiver expire?
- 2) Are there specific specialty products within the fastener list included herein that domestic suppliers could not produce within a reasonable time frame should the waiver expire?
- 3) Would additional fastener manufacturers, beyond those already identified by EPA, be capable of, and interested in, ramping up production for the size and quantity of orders common for water and wastewater project purposes?
- 4) Would a targeted waiver for only a portion of the supply be viable? For example, would availability of large-size hex nuts be a limiting factor and require additional time for supply development?
- 5) Are there additional sources of stainless-steel fasteners that EPA overlooked in its research?
- 6) Is the domestic source of stainless-steel wire and bar stock capable of supplying quantities sufficient for national product use in lieu of a waiver?

To submit public comments, please address them to [CWSRFWaiver@epa.gov](mailto:CWSRFWaiver@epa.gov) or [DWSRFWaiver@epa.gov](mailto:DWSRFWaiver@epa.gov). The public comment period extends through January 31, 2018.

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Table 1: Fastener Manufacturers Contacted by EPA

Manufacturer	Products
AAA Technology and Specialties Co., Inc.	Stainless steel U-bolts; stainless steel or other iron/steel pipe hanger rods and other types of pipe support systems; stainless steel or other iron/steel threaded hook rods in adjustable side beam clamps and top beam clamps
Accurate Stainless Fasteners	Fastener supplier
Alloy & Stainless Fasteners	ASTM A193B or ASTM A193B8 bolts and nuts
Anvil International	Engineered pipe supports, stainless steel or other iron/steel pipe hanger rods); stainless steel or other iron/steel threaded hook rods in adjustable side beam clamps and top beam clamps; stainless steel restraint rods in bolted pipe restraints
Atlanta Rod and Manufacturing	Bolts from 3/8" to 2 1/4"
B&G Manufacturing	Bolts and Screws; rods and studs
Birmingham Fastener	T bolts, stainless steel restraint rods in bolted pipe restraints; pipe hanger rods; stainless steel joint harness tie bolts in the form of hex head bolts; stainless steel U-bolts (very few)
Brighton Best	Nuts and bolts
Copper State Bolt & Nut Company	No products in waiver
The Dale Company	Stainless steel U-bolts
Elgin Fastener Group	Stainless steel hex and hex flange bolts and nuts
Fall River Manufacturing Co. Inc.	No products in waiver
Fastenal	Manufacturer and supplier of multiple types of fasteners including U-bolts, threaded rods, and all-thread rods
Fairway Fasteners	Fastener supplier (not manufacturer)
FM Stainless Fasteners	Fastener supplier (not manufacturer)

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Manufacturer	Products
Grandeur Fasteners	Bolts and nuts in a variety of head styles
Gulf State Hangers, Inc.	Stainless steel U-bolts; joint harness tie bolts; pipe hangers (all-thread rods, nuts, and screws are out-sourced)
Holo-Krome	Threaded U-bolt, threaded rods and studs
Lone Star Fasteners	Bolts and nuts
National Pipe Hanger Corporation	Manufacture stainless steel U-bolts, pipe hangers, other pipe support devices. Nuts and bolts are purchased
Pacific Coast Bolt Corporation	Flange kits and fasteners
R&D Fasteners	Hex, heavy hex, T-head bolts, oval neck track bolts
Robbins Manufacturing	No products in waiver
Rockford Fastener, Inc.	No products in waiver
Sems and Specials, Inc.	Threaded bolts and screws. However, do not manufacture fasteners that are the subject of this waiver
Star Stainless	No response
Suncor Stainless, Inc.	U-bolts; do not manufacture fasteners that are the subject of this waiver
Texas Cold Headers	Bolt and nuts
USA Fastener	Bolts and nuts
Valley Fastener Group, LLC	No products in waiver
Vulcan Threaded Products	No products in waiver