

**Technical Bulletin OPP TB-221116.100**

**Domestic Water Piping**

**Lead Free Fittings**

**Background**

Amendments to the Safe Drinking Water Act will take effect January 4, 2014. The result of this legislation will require the use of designated lead-free fittings on all domestic water piping smaller than 2”.

**U.S. Senate Bill No. S.3874 Summary [[1]](#endnote-1), [[2]](#endnote-2)**

Reduction of Lead in Drinking Water Act – Amends the Safe Drinking Water Act to exempt from prohibitions on the use or sale of lead pipes, solder, and flux: (1) pipes or plumbing fittings or fixtures, including backflow preventers, that are used exclusively for non-potable services such as manufacturing, industrial processing, irrigation, outdoor watering or any other uses where the water is not anticipated to be used for human consumption; or (2) toilets, bidets, urinals, fill valves, flush-o-meter valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are two inches in diameter or larger.

Re-defines “lead free” under such Act to mean (1) not containing more than 0.2% lead when used with respect to solder and flux (current law); and (2) not more than a weighted average of 0.25% lead when used with respect to the wetted surfaces of pipes and pipe and plumbing fittings and fixtures.

Establishes a formula to calculate the weighted average lead content of a pipe or plumbing fitting or fixture.

**Diagnosis**

All new domestic water piping installations smaller than 2” at the University will comply with the lead free standard. Penn State has opted not to distinguish between domestic water installations that may or may not be for potable use. As space and building uses change over time, it is unrealistic to anticipate all intended uses.

This standard will not apply to re-use water, HVAC piping or other non-potable water sources.

**Corrective Action**

PSU stores will begin stocking lead-free valves, fittings and specialties on a limited basis thru fall of 2013. Beginning January 2014, all devices, 2” and smaller, intended for domestic water use, will be supplied in a lead-free version.

Each manufacturer will provide multiple methods for identification of lead-free fixtures. Look for different handle colors, “LF” in castings, or “LF” as an addition to the standard model number.

Due to up to 50% cost premiums on domestic lead-free devices, technicians must be diligent in using lead-free appurtenances only on domestic water systems.

Penn State is currently researching the possibility of utilizing type 304 stainless steel fittings in lieu of lead-free brass as a cost-saving measure. A revised version of this bulletin will be issued if stainless will be accepted as an alternate.

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1. Summary directly copied from [www.weareleadfree.net](http://www.weareleadfree.net). This site is a division of Watts Water Technologies, used with permission, Greg Gyordia, Watts Water Technologies. [↑](#endnote-ref-1)
2. <http://www.govtrack.us/congress/bills/111/s3874/text> [↑](#endnote-ref-2)