



Quick Guide to **Federal** **lead-free** and **health effects** regulations

The last round of Federal legislation on the **Safe Drinking Water Act** was enacted January 2014, so why should these rules remain top-of-mind? Here are just a few reasons:

- Installation of noncompliant products can result in fines or forced replacement.
- Not all manufacturers or *their* suppliers are compliant, and some are confused as to what constitutes compliance.
- The amended Federal law made manufacturer certification voluntary, so your job of ensuring equipment compliance is even more difficult.
- The EPA is currently reevaluating legislation for further updates.

Key Requirements

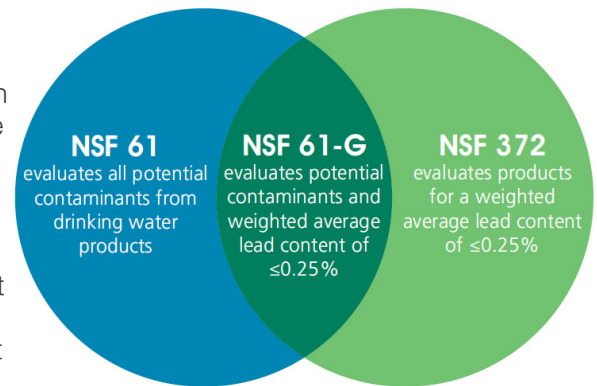
The **Reduction of Lead in Drinking Water Act of 2011**

(RLDWA) tightened the definition of “lead-free”, created exemptions to the existing lead prohibitions and eliminated the federal requirement for plumbing fittings and fixtures to comply with 3rd party standards. The Act allowed 3 years to modify equipment so that by January 2014, all pipes, pipe fittings, plumbing fittings and fixtures used for potable water must meet a weighted average lead content of $\leq 0.25\%$ (rather than 8%, with solder and flux held at 0.20%) and prohibits installation of any back inventory. Since this Act removed certification requirements or enforcement language other than what is already in the SDWA, it’s incumbent on local inspectors to police installed products for compliance.

NSF/ANSI Standard 61 – Drinking Water System Health Effects was originally published in 1988 to control potentially adverse human health effects from products that contact drinking water. This standard restricts both 1) the level of lead that can be contained in materials that contact drinking water products, and 2) the level of lead that can leach out of materials and into drinking water. As of 2012, 5 ppb maximum lead leach applies to all wetted materials, including rubbers, plastics, adhesives, lubricants.

NSF/ANSI 61 Annex G (NSF 61-G) – in 2008, an Annex G amended requirements for when a $\leq 0.25\%$ lead mandate needs to be met in addition to maintaining other chemical extraction req’s of NSF 61. In 2010, Annex G’s lead content evaluation procedures were transferred to a new NSF/ANSI Standard 372. With the intent of phasing out Annex G, NSF 61-G was updated to reference NSF 372, remaining relevant only to products that fall under the scope of NSF 61.

NSF/ANSI 372 – was introduced in 2011 to establish procedures to meet the $\leq 0.25\%$ lead content requirement of the RLDWA using a wetted surface area average calculation or just simply using all no-lead materials for areas that contact drinking water. NSF 372 includes a broader scope of drinking water products which may not be covered under NSF 61 (e.g. coffee machines; food service equipment) and enables large or complex products and assemblies



NSF Overview of Lead-Free Compliance

to achieve certification for the 2014 lead-free law that previously were unable to be certified under NSF 61. Note however, that NSF 372 is a lead-only prescriptive-based standard as compared to NSF 61-G’s performance-based requirements.

While NSF 372 was intended to replace Annex G as the 0.25% lead-free standard, concurrent certifications for both NSF 61-G and NSF 372 will remain until the EPA and certifiers sort out implementation problems and make course corrections. So **for the time being, all products certified as compliant with Annex G are also compliant with NSF 372.**

We’ve created a go-to web resource for in-depth information and links to the most authoritative Federal, State and certifier references:

<http://bit.ly/1HaGzX5>

State rules + PP&S certified products

Quick Guide to NC+SC State lead-free and health effects regulations

Fully enacted in 2014, the Federal **Reduction of Lead in Drinking Water Act** (RLDWA) made *manufacturer certification voluntary*, so your job of ensuring equipment compliance is even more difficult. Note that NSF 60 and NSF 61 certification IS required by both NC and SC. While these states don't require a lead-free *certification*, it is still your responsibility to ensure your installed applicable equipment meets the $\leq 0.25\%$ lead requirements as outlined in either the Annex-G or 372 standards.

PP&S stresses to our customers the importance of sticking with certified OEM equipment to remove risk to your operations. Pertinent NSF certifications can typically be identified on an **equipment plaque**. We recommend you look for these markings on the equipment and associated product literature:

- **NSF 61-G** = the product is certified to all requirement of NSF/ANSI 61 (health effects) and all requirements of Annex G and NSF/ANSI 372 (lead content)
- **NSF 372** = the product is only certified to NSF/ANSI 372 for lead content

Visit our comprehensive web resource for in-depth information and links to Federal, State and certifier resources:

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Health Effects + Lead-free overview

State Adoption of NSF/ANSI Standards with Certification

State	State Citation	ANSI-accredited Certifier required	Effective date of state adoption of standard and certification		
			Standard 60	Standard 61	Standard 372
NC	15A NCAC 18c.1537	NSF 60/61 only	07/01/1994	07/01/1994	2014 Fed compliance to $\leq 0.25\%$ lead content, but no req for 372 certification
SC*	R.6 1-58.2 (B) 4 & (E) 3	NSF 60/61 only	07/28/1995	12/31/1995	2012 State req to $\leq 0.25\%$ lead content but no req for 372 certification

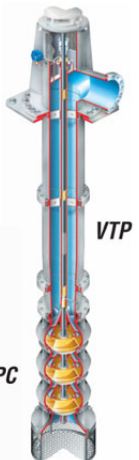
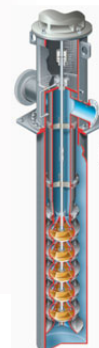
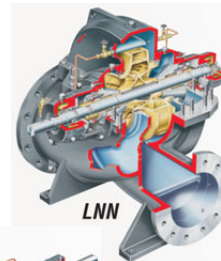
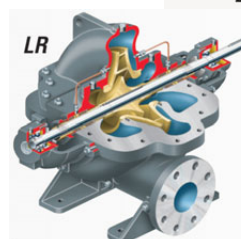
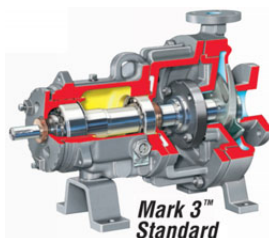
* SC regulations are derived from "10 State Standards for Water Works" which references Standard 60 for treatment chemicals and Standard 61 for water treatment and distribution products.

PP&S Environmental NSF compliant products

The best way to ensure you are compliant with all regulations is by purchasing fully certified equipment. PP&S offers a wide range of pumps, seals, peripheral equipment and epoxies that are certified to Federal, NC and SC state requirements:

Flowserve® –

- SUBM deep well pump, submersible motor (oil-filled)
- VTP vertical turbine pump
- VPC vertical turbine, double case
- LR axially split, single-stage
- LNN axially split, single-stage
- Mark 3 ASME (ANSI) standard
- Flowserve mechanical seals



Griffco Valves – back pressure and pressure relief valves, calibration cylinders

ITW Polymers Adhesives – epoxy grouts

Pulsed Hydraulics – mixing systems

Axiall – (NSF 61 health effects only) chlorination systems