

2012 – 2014 REGULATORY OVERVIEW

NSF/ANSI Standard 61 – 5 ppb Lead Leach Limit Change (Annex F):

Standards Change: Reduces allowable lead limit from 15 ppb to 5 ppb maximum for all NSF Standard 61 certified products.

Effective Date: July 1, 2012

Discussion: This is a rolling certification change where existing NSF Standard 61 approved products will be retested to the new 5 ppb lead requirement in order to maintain NSF Standard 61 approval. Recertification to the revised standard must be completed by July 1, 2012. All new product approvals are currently being evaluated against the updated lead standard.

The new certification language is currently located in NSF Standard 61 Annex F. Following the July 1, 2012 implementation date, the Annex F language will be incorporated into the Standard 61 body and Annex F will be obsolete. Products approved to the new requirements now show Annex F or a July 1, 2012 date in their certifications. Products not meeting the new 5 ppb lead limit may be certified to the old 15 ppb standard until July 1, 2012, and will show the respective standard date on their certifications. We will continue to certify our 85-5-5-5 products under the 15 ppb rules until the July 2012 cut-off. At that time products will either have passed the new standard or be delisted. Remember the 5 ppb maximum lead leach change applies to all wetted materials, including rubbers, plastics, adhesives, lubricants, etc.

It is possible some products may have difficulty meeting the 5 ppb certification due to large or complex wetted cast surface areas, assemblies, and casting processing variables. Alternate materials may be employed to achieve Standard 61 approval.

It is probable some users will migrate away from the Standard 61 purchase specification if product availability or cost is a concern (at least until the 2014 lead-free mandate). The 5 ppb standards change should provide an early indicator of customer loyalty to Standard 61 and may wean away the 61-support base towards NSF 372 leading up to the 2014 national law.

NSF/ANSI Standard 61 remains a performance based standard with a significant reduction in the allowable lead level. While the lead limit was reduced by a factor of 3, other changes in the test protocols (extensions) actually make this a 9 times reduction.

Implications:

Manufacturers: Existing 85-5-5-5 and no-lead copper alloy certified products manufactured before July 1, 2012, including those in finished goods inventory, will retain their original Standard 61 certification (15 ppb) and may be sold as approved product. Standard 61 certified products made after July 1, 2012, will be constructed from no-lead/lead-free copper alloys to meet the 5 ppb limit.

Distributors/Users: All new product purchases specifying NSF Standard 61 after July 1, 2012, will be made from no-lead/lead-free copper alloys. Customers may be impacted by some

products no longer carrying the Standard 61 certification. New 85-5-5-5 leaded brass products produced after July 1, 2012, will not carry the NSF Standard 61 certification but may continue to be sold until January 4, 2014.

Since this is a certification only change, there are no restrictions on purchasing, distributing, or selling NSF Standard 61 approved products manufactured before July 1, 2012, including certified leaded products. The 5 ppb lead certification is a rolling change intended to eventually purge lead containing product from the supply stream following the July 1, 2012, implementation date.

NSF/ANSI Standard 372 – 0.25% Maximum Lead Content (formerly Annex G):

Standards Change: This is a new NSF standard for 0.25% lead containing material certification in accord with California AB1953 and the new national lead-free law.

Effective Date: October 1, 2010 (published early 2011)

Discussion: New NSF Standard 372 provides certification for products that have a 0.25% maximum lead content in the base material for all wetted components using a surface based averaging formula. This is a lead only approval standard and does not address the other metals and chemicals evaluated under NSF Standard 61 or Standard 61 Annex G. Surface treatments/lead washes are not recognized. Coatings are recognized only if they meet certain life performance criteria. Liners (such as plastic) may be used as the base wetted material as long as the liner is sealed on each end. Standard 372 was initiated to provide third party independent certification (per California SB1334) for California AB1953 (just like Annex G) and parallels test requirements and product exemptions, including saddles.

NSF Standard 372 replaces NSF Standard 61 Annex G. Under Annex G all products must first meet the leach requirements of Standard 61 and then the Annex G lead content limit. NSF Standard 372 removes the Standard 61 preapproval caveat and requires a 0.25% maximum lead content for the wetted component base material as the only measure. The approval is determined by a wetted surface area average calculation or just simply using all no-lead materials for areas in contact with drinking water.

This new approval enables large or complex products and assemblies to achieve certification for California and the 2014 national lead-free law that previously were unable to be certified under Standard 61. NSF 372 is a prescription based standard as compared to Standard 61's performance based requirements.

Annex G will eventually be obsoleted deferring to Standard 372 as the 0.25% no-lead/lead-free standard. California requested a two-year window to get NSF 372 approved in the state waterworks standard.

It is not clear at this time how fast NSF 372 will be integrated into state statutes, or if it will supplement or supersede Standard 61 as product availability is impacted by the 5 ppb change. The new national lead-free law should accelerate NSF 372 recognition at the state level and it could become the prominent specification given the right circumstances. During the next five years there will be concurrent

customer specifications for both NSF 61 and NSF 372 until the market and certifiers sort out the implementation problems and make course corrections.

Implications:

Manufacturers: This new no-lead standard is specific to California law and the 2014 national lead-free law. Standard 372 may be used to certify products that fall outside of Standard 61 Annex G or as an independent no-lead product certification for all products. Our current line of no-lead certified products has the Annex G adder demonstrating compliance to California law independently thru Underwriters Laboratories. We are working to get non-NSF 61 approved products certified under Standard 372 and then extend 372 approval to the complete Ford no-lead product line in anticipation of the 2014 law.

Distributors/Users: Distributor, contractor, and user education is required to recognize NSF 372 certification for the state no-lead laws currently in effect and in anticipation of the SDWA 2014 lead-free implementation. This is an active standard and may be used on product as approval is granted.

S.3874, Reduction of Lead in Drinking Water Act:

Standards Change: New national law amends the Safe Drinking Water Act requiring products in contact with drinking water to a 0.25% maximum lead content in the base material for all wetted components using a surface based averaging formula. The origin was Senate Bill S.3874.

Effective Date: January 4, 2014

Discussion: The new national law prohibits the use of products not meeting the 0.25% lead content requirement effective January 4, 2014. The law does not contain any exemption language for states, municipalities, or otherwise. It also does not contain certification requirements or enforcement language other than what is already in the Safe Drinking Water Act.

The new national law replicates California AB1953 test requirements and product exemptions. The national law exemptions are: non-potable water service devices where the water is not anticipated for human consumption (manufacturing, industrial, irrigation), toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, and water main gate valves 2" in diameter or larger.

Changeover is regardless of NSF driven specifications as the new law transcends certifiers and manufacturers and targets the end user under the SDWA. Note the new NSF Standard 372 will provide independent third party verification to the law and serve as an engineer specification tool. That worked so well with Standard 61 we can do it again using 372.

Implications:

Manufacturers: This is a mandatory changeover to no-lead/lead-free copper alloys for all Ford products with brass components in contact with drinking water, noting the service saddle exemption. Manufacturers will need to document their reasoning for product and/or component exemptions outside those allowed by the law. It is probable there will be litigation regarding manufacturer assumptions/interpretations of the product exemptions in some suit-prone states.

Affected products will transition to no-lead copper alloys or alternate materials per factory recommendations before the January 2014 cut-off date. Certification to NSF Standard 372 approvals will be expanded to all Ford no-lead products demonstrating compliance thru third-party independent approval.

Inventory and products in-process must be no-lead before the new law's implementation date. 85-5-5-5 products cannot be used in potable water applications after January 4, 2014.

Distributors/Users: Ideally, all products at the distributor, contractor, end user, and in the supply stream will be no-lead before January 4, 2014. Recognizing there is no SDWA enforcement other than at the local level, it is anticipated leaded products will continue to be used until the 85-5-5-5 field stock is depleted. It will be up to local site inspectors to police the installed products for compliance. Probable scenarios include job rejections, whistle-blower incidents, and litigation. The probability is high that some leaded product will be field marked as no-lead and will require factory diligence to extract falsified no-lead returned goods.

Customer education will be critical for SDWA product requirements and exemptions, and for NSF 372 certification recognition in anticipation of the 2014 lead-free implementation.