Regulations Implementing Section 1417 of the SDWA:
Prohibition on Use of Lead Pipes, Solder and Flux
Public Webinar
April 14, 2015

EPA held a webinar and meeting on April 14, 2015 to solicit public input on potential regulatory options and obtain information that may inform the regulatory options for the proposed rule to be published in 2016.

The meeting provided the opportunity for state, utility, industry and environmental/consumer stakeholders to share their perspectives on the successes and challenges of implementing the Reduction of Lead in Drinking Water Act (RLDWA).

There were more than 150 participants for the online webinar and 12 participants attended in person.

Opening Remarks

Peter Grevatt, Director of the Office of Ground Water and Drinking Water, thanked presenters for taking time out of their busy schedule to participate in the proceedings and explained that the Agency was hoping to get feedback on potential regulatory options that EPA is considering.

Presentations

Background on the Regulations Implementing Section 1417 of the Safe Drinking Water Act
Presenter: Brian D'Amico - USEPA, Office of Ground Water and Drinking Water

The presentation provided an overview of the legislative history of the lead prohibition in the Safe Drinking Water Act (SDWA). The 1986 SDWA amendments, defined "Lead Free" as solder and flux with no more than 0.2% lead and pipes with no more than 8%. The 1996 SDWA amendments made it illegal for any pipe or plumbing fixture that is not lead-free to be introduced into commerce except for pipes used in manufacturing or industrial processing, and required lead leaching standards be developed by 3rd party certifiers with EPA assistance.

The 2011 Reduction of Lead in Drinking Water Act revised the allowable lead content (reduced to a weighted average of wetted surfaces of 0.25%), removed the federal requirement for pipes, fittings and fixtures to be in compliance with lead leaching standards, and established exemptions for plumbing products used exclusively for non-potable services and for specific plumbing devices (i.e. toiles, bidets, etc). The Community Fire Safety Act of 2013 added fire hydrants to the list of exempted plumbing devices.

The presentation was followed by a short Question and Answer session. Questions related to the intent of specific provisions were relayed. EPA clarified that the modifications were a result of Congressional amendments to the SDWA and not through EPA regulations.

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Consumer Perspective
Presenter: Lynn Thorp – Clean Water Action

The presentation provided a consumer perspective on the lead free requirements, including challenges faced by consumers in identifying lead free products.

The presentation stated that EPA's rulemaking should have consideration for: the role of the consumer, the importance of public education, and the challenge of getting consumers readily available information.

The presentation also highlighted the need for consistency in lead free labeling, as the average consumer may not understand the different packaging and product labeling manufacturers use to identify their product as lead free.

The presentation was followed by a short Question and Answer session. There were no questions.

State Perspective
Presenter: Karl Palmer – State of California's Department of Toxic Substances Control.

The presentation provided the State perspective on implementing lead free requirements, including an overview of the Department of Toxic Substance Control's sampling efforts to document compliance with California's lead free law (HSC Section 11675).

The Department of Toxic Substances Control (DTCS) is responsible for implementing the State's lead free law. The DTSC conducted product testing in 2010 and 2011 to determine compliance with the California lead free standards (weighted average of 0.25% lead across the wetted surfaces).

Testing results from 2010 and 2011 indicated compliance across categories of fittings was inconsistent; however there were higher instances of compliance in larger retail stores than smaller ones, potentially due to higher inventory turnover in larger stores. Additional testing was not mandated by the State and there has not been another sampling effort since 2011.

The presentation was followed by a short Question and Answer session. Questions related to follow up sampling were conveyed. The state confirmed that there had been no further sampling since the 2011 study and that future sampling is not currently scheduled. Additional sampling would be dependent on available funding.

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Utility Perspective
Presenter: Nicole Charlton - Philadelphia Water Department

The presentation provided the water utility perspective on the lead free requirements including lessons learned by the Philadelphia Water Department in complying with the RLDWA.

Some impacts of complying with the RLDWA included: scrapping non-compliant brass valves, more frequent maintenance for lead free parts (particularly impellers) as they are not as durable as their leaded counterparts, and the creation of an extensive water meter replacement program.

The city of Philadelphia increased its meter budget from $2M to $5M (to be spent over three years), due to the inability to replace broken meters with non-compliant refurbished meters, as was the practice prior to the RLDWA. The budget increase will go towards replacing water meters that do not meet the new lead free definition. About 80% of these water meters are in residential locations.

In order for utilities to be able to comply with the RLDWA, manufactures, retailers and other entities must comply with the RLDWA requirements as well. Mechanisms that have aided Philadelphia in complying are: voluntary standards to help identify lead free products, changes in design and construction specifications, field inspections, and updated local ordinances.

The presentation was followed by a short Question and Answer session. Participants requested clarifications on the duration of the meter replacement plan budget. The presenter clarified that the expenditures would continue past the discussed three year period, but those costs would be masked by a prior approved meter replacement program.

Industry Perspective
Presenter: Barbara Higgens - Plumbing Manufacturers International (PMI)

The presentation provided the industry perspective on complying with the new lead free requirements.

PMI member firms are located in 18 states and have more than 25,000 directly employed workers. PMI was a proponent of the RLDWA and was a founding member of the Get The Lead Out Consortium.

Challenges in manufacturing RLDWA compliant products include: destroying non-compliant inventory, and re-engineering products and manufacturing processes.

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PMI recommended the use of NSF 372/NSF 61 to demonstrate compliance with the RLDWA and noted that 3rd party certification already has labeling requirements so any new requirements imposed by EPA would be redundant and/or confusing.

PMI stressed the need for terminology in EPA's regulation to be consistent with other publications, such as state regulations and uniform plumbing definitions. One example was to use the term "intended" from the California law instead of "anticipated".

PMI stated that stronger enforcement of the lead free requirements on imported plumbing devices by US Customs and Border Protection, as well as the Federal Trade Commission was needed.

The presentation was followed by a short Question and Answer session. Participants questioned the requirements of NSF 61 and 372 (specifically clarification that NSF 61 does include lead free requirements) and participants provided clarification that NSF is not the only ANSI accredited certifier. Others certifiers include IAPMO, CSA, WQA and UL; and EPA should not exclude any of them.

Potential Regulatory Options
Presenter: Brian D'Amico - EPA's Office of Ground Water and Drinking Water

The presentation laid out three regulatory options that EPA was considering and requested feedback after each one. This three regulatory options were:

1. Requiring labels on lead free products. EPA specifically requested information regarding the advantages of labeling these products, challenges, and any available cost information.

2. Requiring labels on products exempted because they're used exclusively for nonpotable services. Again, EPA requested information regarding the advantages of labeling these products, challenges, and any available cost information.

3. Demonstrating compliance with Section 1417 Lead Free Requirements (either 3rd party certification, self-certification, or combination of the two). EPA requested feedback on the benefits of this requirement, who should conduct the certifications, barriers to certification, and any associated costs.

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Regulatory Option Feedback

EPA requested feedback after each option was presented.

Labeling Feedback

The participants indicated that most existing state regulations already require NSF 61 certification, which included labeling the products as lead free, therefore these products are already labeled – primarily on the package. Some participants also expressed that a clear standard for both lead free and non-potable products is necessary for successful implementation of this rule.

Specific concerns regarding labeling included: available space on a product for labeling and casting or color-coding requirements for product labeling, some products cannot be marked directly on the product (due to either size constraints or aesthetic reasons) and specific labeling requirements might necessitate abandoning years of inventory.

Participants also raised concerns regarding potentially noncompliant plumbing devices available for purchase from the internet. Attendees suggested that EPA should consider how a product could be used, not just the intended use (including possible potable use of leaded products).

Finally, EPA's authority to require labeling was questioned and EPA clarified that the Agency does have authority to require labeling.

Third-Party Certification Feedback

Many participants questioned the RLDWA's removal of 3rd party certification, and EPA again clarified that Congress removed the provision not EPA.

Participants indicated that even though it had been removed at the federal level many state and local building codes still require 3rd party certification.

Participants suggested that NSF 372 or NSF 61 would be suitable standards to require but that EPA should not limit the approved certifying bodies to just NSF. Also the participants did not consider self-certification a good process for ensuring compliance with the lead free requirements.

Other Feedback

In addition to the feedback requested by EPA, the participants also provided information on several other topics.

Regarding EPA's *Summary of the Reduction of Lead in Drinking Water Act and Frequently Asked Questions* document, the comments focused on ensuring that the FAQs and the previous

comments made with respect to the FAQs would be addressed in the rulemaking. Ideally, the rule should to be clear regarding fixtures versus components and repair/replacement requirements.

Other commenters stated that a plumbing product, if removed from service for a repair, should not be reinstalled unless it met the new definition for lead free.

At the conclusion of the proceedings EPA provided an email address the participants could use to send additional feedback through April 30, 2015.

Appendix A: Presentations

Regulations Implementing Section 1417 of the Safe Drinking Water Act Webinar

Call in Number: (866) 379-5082

Conference Code: 24849842

Agenda

12:45 Phone and webinar lines open

1:00-1:10 Welcome, Webinar Objectives/Agenda, Materials and Logistics

Moderator: Matthew Robinson, USEPA Office of Ground Water and Drinking Water

- Provide background information on SDWA 1417 "Lead Free" amendments and requirements
- Provide state, utility, industry and environmental/consumer perspectives
- Provide information on potential regulatory options
- Discuss and solicit public input on potential regulatory options and obtain data and information that may inform the regulatory options

1:10-1:20 Open Remarks

Peter Grevatt, Director, USEPA Office of Ground Water and Drinking Water

1:20-1:35 Presentations: Background on the Regulations Implementing Section 1417 of the Safe Drinking Water Act: Lead in Drinking Water

Objective: Learn about SDWA 1417 and EPA's ongoing regulatory development activities associated with the Reduction of Lead in Drinking Water Act.

Presenter: Brian D'Amico, USEPA Office of Ground Water and Drinking Water

Agenda (Cont.)

1:35-3:30 Presentation: Perspectives of the RLDWA

Objective: Learn about successes and challenges of implementing the RLDWA through State, Utility, Environmental/Consumer and Industry experiences.

- Environmental/Consumer perspective
  Lynn Thorp, Clean Water Action
- State perspective
  Karl Palmer California Department of Toxic Substances Control
- Utility perspective
  Nicole Charlton, Philadelphia Water Department
- Industry perspective
  Barbara Higgens, CEO Plumbers Manufacturer International

3:30-4:00 Presentations: Potential Regulatory Options

Objectives: Discuss the opportunities and challenges of potential regulatory options for implementing SDWA 1417 "Lead Free".

Presenter: Brian D'Amico, USEPA Office of Ground Water and Drinking Water

4:00-4:15 Public Comment Period

4:30 ADJOURN

Regulations Implementing Section 1417 of the Safe Drinking Water Act: Prohibition on Use of Lead Pipes, Solder and Flux

April 14, 2015

Brian D'Amico, US EPA

Purpose of Today's Presentation

- Review the requirements of Section 1417 of the Safe Drinking Water Act.
- Present potential regulatory requirements EPA is evaluating.

Background

- In 1986 Congress Amended the Safe Drinking Water Act:
  - It prohibited the use of pipes, solder or flux that are not “lead free” in public water systems or plumbing in facilities providing water for human consumption.
  - At the time ‘Lead Free” was defined as solder and flux with no more than 0.2% lead and pipes with no more than 8%.

Background (cont'd)

- In 1996 Congress further amended the Safe Drinking Water Act:
  - Required plumbing fittings and fixtures (endpoint devices) to be in compliance with lead leaching standard developed by 3rd party certifiers with EPA assistance.
  - Prohibited the introduction into commerce of any pipe, pipe or plumbing fitting or fixture that is not lead-free.
  - Expanded the use prohibition to cover pipe or plumbing fittings and fixtures.

Reduction of Lead in Drinking Water Act of 2011

- Enacted on Jan 4, 2011, this act modifies existing SDWA Section 1417.
- The SDWA modifications:
  - Changes the definition of “lead-free”
  - Creates exemptions of the existing lead prohibitions
  - Eliminates federal requirement for plumbing fittings and fixtures to comply with 3rd party standards

- Effective date – January 4, 2014
  - Back inventory that does not meet the requirements of the RLDWA can no longer be sold or installed.

Revised Definition of Lead Free

- Revises the maximum allowable lead content from not more than 8% to not more than a weighted average of 0.25% of the wetted surface of pipes, pipe fittings, plumbing fittings, and fixtures.

- Established calculation procedure for determining lead concentration of a product from the components that make up the product.

- Eliminates the federal requirement for certain products (plumbing fittings and fixtures) to comply with standards for lead leaching (NSF/ANSI Standard 61 Section 9).
  - State regulations or local ordinances may still required certification

Lead Free Prohibition Exemptions

- Uses
  - The first exemption is for “pipes, pipe fittings, 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…”

- Products
  - The second exemption is for “toilets, bidets, fire hydrant, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.
  - Hydrants were exempted as part of the Community Fire Safety Act of 2013.

RLDWA Frequently Asked Questions

- EPA developed FAQs based on issues and concerns identified by stakeholders.
  - August 2012 Stakeholders meeting
- Purpose was to help the public understand the statutory requirements.
- Published draft for public comment May 2013 and finalized December 2013
  - http://water.epa.gov/drink/info/lead/upload/epa815s13003.pdf

Perspectives

- Enviro/Consumer: Lynn Thorpe
- State: Karl Palmer
- Utility: Nicole Charlton
- Industry: Barbara Higgins

EPA Webinar:
Implementation of the Reduction of Lead in Drinking Water Act of 2011

April 14, 2015

CLEAN WATER ACTION

Lead Exposure

No Safe Level

Wide array of health impacts

Children especially vulnerable

Public health priority

CLEAN WATER ACTION

Consumer/Public Considerations

- Unique role of consumer
- Heightened importance of public education
- Challenge of getting consumers information they need when they need it

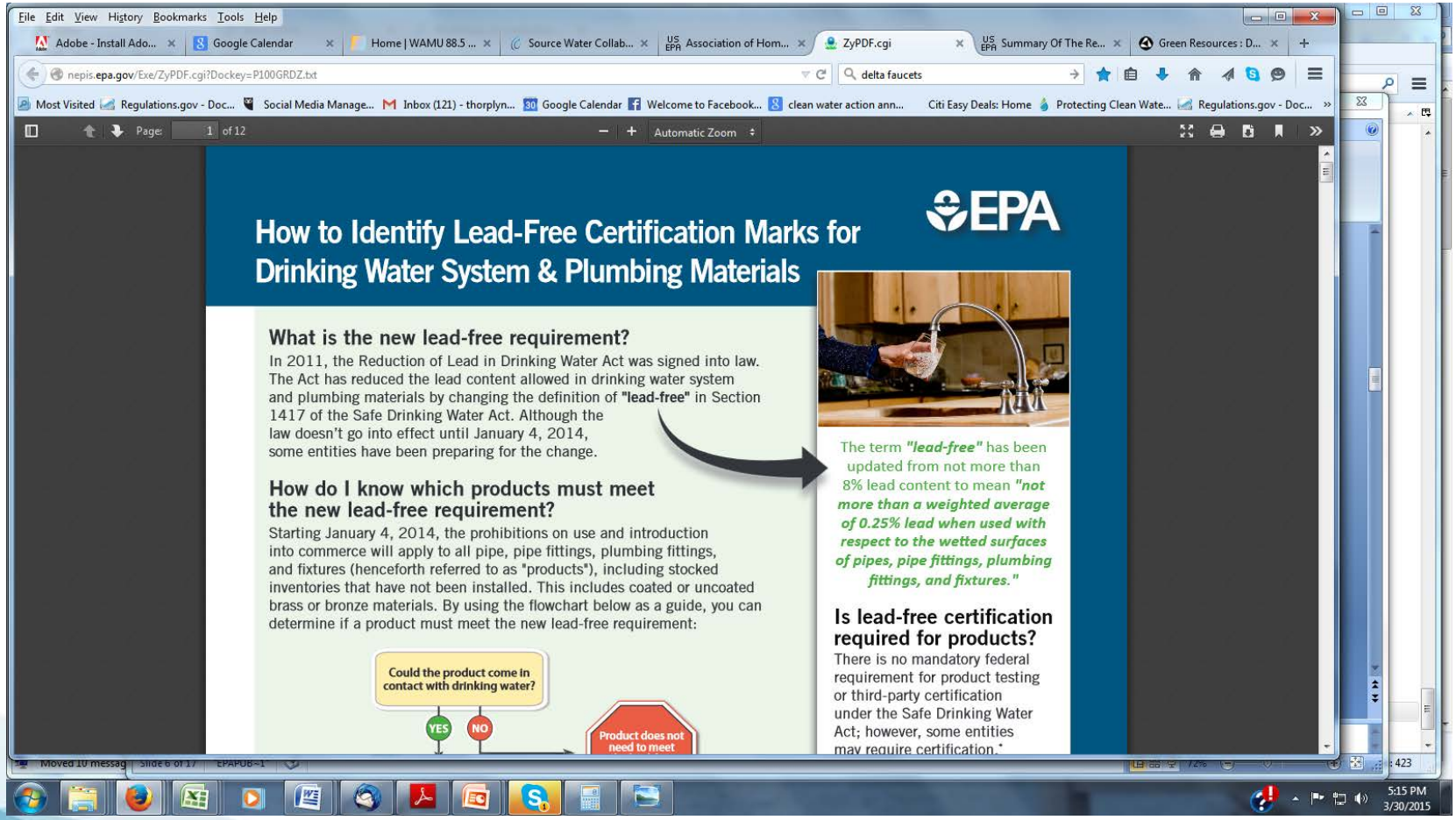
CLEAN WATER ACTION

My Consumer Experience

- At the store
- On the manufacturer website
- My particular knowledge not the norm

CLEAN WATER ACTION

CLEAN WATER ACTION



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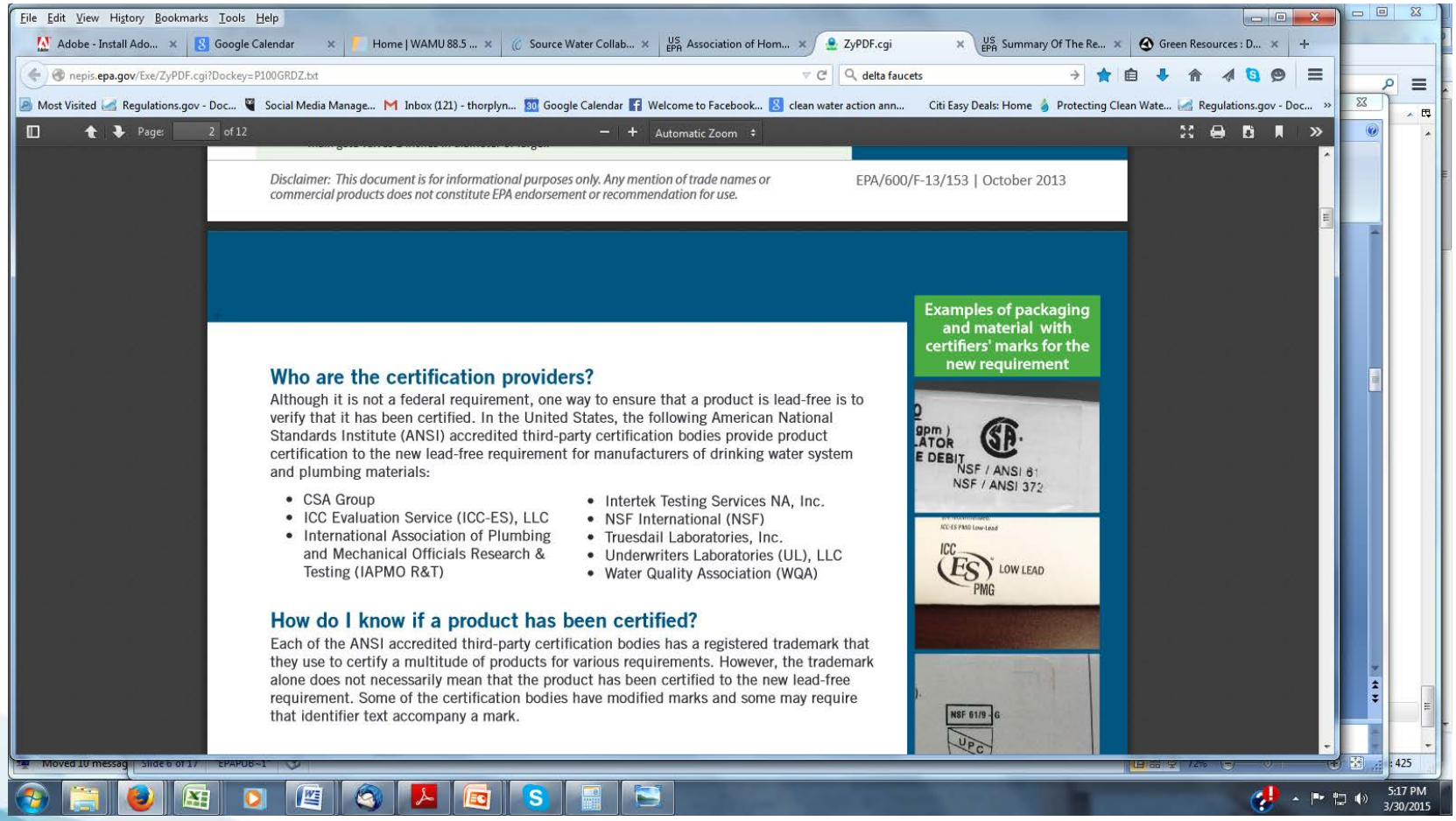
CLEAN WATER ACTION



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CLEAN WATER ACTION

Improving Consumer Info?

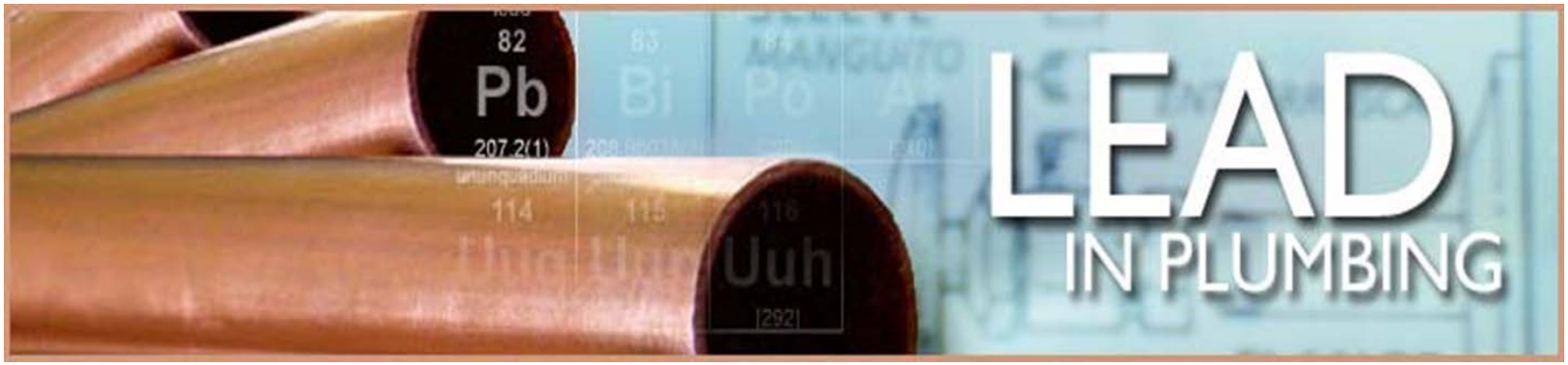
- "How to Identify Lead-Free Certification Marks" fact sheet found through RDLDWA FAQs – Make more prominent
- Manufacturers – Improve packaging over time?
- Consistency

CLEAN WATER ACTION

Principles

- Reduce public health risk
- Address contamination at the source
- Increase consumer awareness and ability to make informed choices
- Incorporate lessons learned in states

CLEAN WATER ACTION



Karl Palmer, Chief

Safer Products Branch

Department of Toxic Substances Control

Cal/EPA

Today's Topics

- DTSC Efforts
- Regulatory Authorities
- Testing and Monitoring Results
- Concerns
- Questions

Regulatory Background

On January 1, 2010, California law (HSC section 116875) reduced allowable lead concentrations:

- "lead free" to mean that the maximum allowed lead content is:
  - 0.2 % lead in solder and flux;
  - *0.25 %* lead in *wetted surfaces* of pipes, pipe fittings, plumbing fittings and fixtures, as determined by a weighted average.

Regulatory Background

The California law further prohibited:

- Any person from using any pipe, pipe or plumbing fitting or fixture, solder, or flux that is not "lead free" in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption, except when necessary for repair of leaded joints of cast iron pipes;
- Any person from introducing into commerce any pipe, pipe or plumbing fitting, or fixture that is not "lead free," except for a pipe that is used in manufacturing or industrial processing;
- Any person engaged in the business of selling plumbing supplies, except manufacturers, from selling solder or flux in the business that is not "lead free;"

HSC § 25214.4.3

DTSC is required to:

- 1) annually select, to the extent resources are available, up to 75 drinking water faucets and other fittings and fixtures for testing and evaluation to determine compliance with the lead free standards in Health and Safety Code section 116875,
- 2) post the test results on DTSC's internet web site, and
- 3) transmit the test results in an annual report to the California Department of Public Health (DPH), recently transferred to the State Water Resources Control Board .

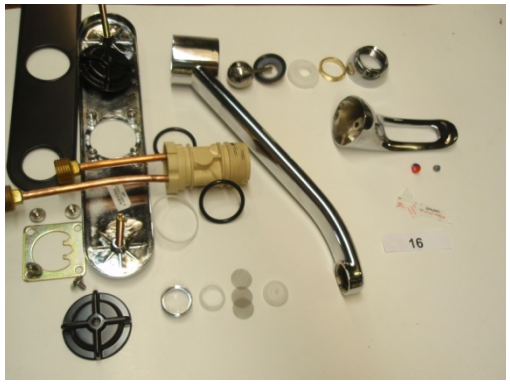
DTSC's Role in Implementing Low Lead in Plumbing Law

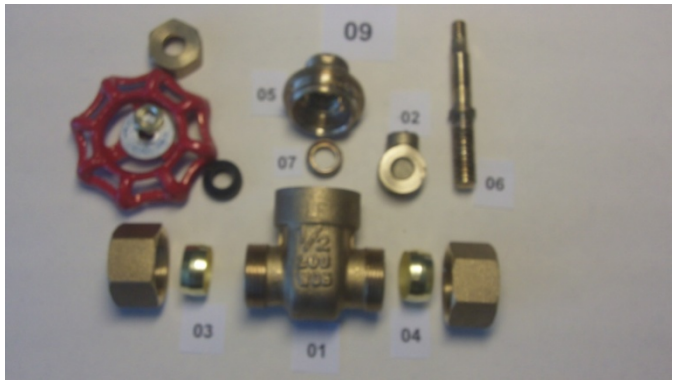
Role as Auditor

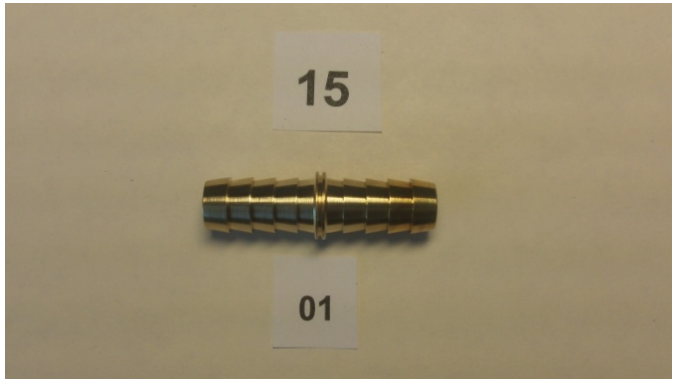
- Testing Protocol
- Annual Sampling and Testing
  - Web Posting and Reporting
- Coordination and Outreach

http://www.dtsc.ca.gov/PollutionPrevention/LeadInPlumbing.cfm

Components and Wetted Surface Areas







Two Reports: 2010 and 2011

California Environmental Protection Agency
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

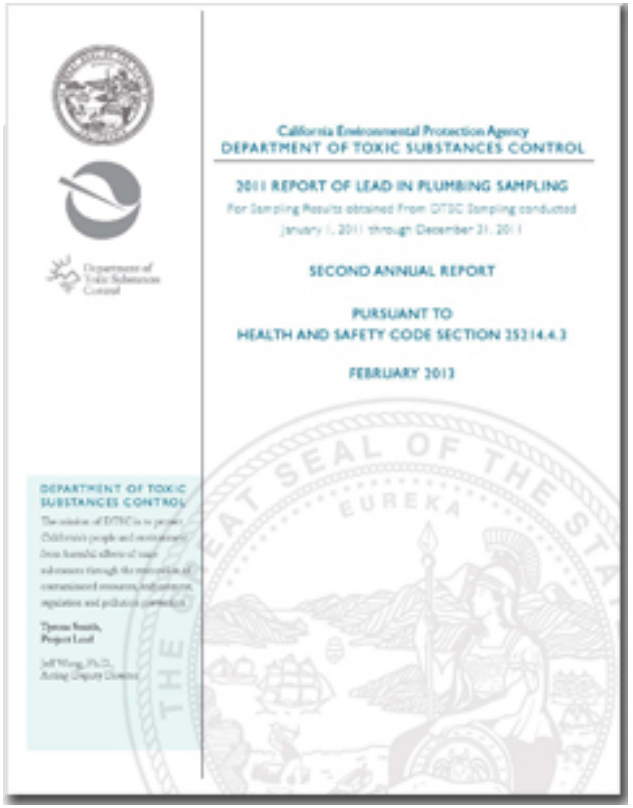
DTSC SAMPLING FOR
LEAD CONCENTRATIONS
IN CALIFORNIA PLUMBING PRODUCTS
2010 REPORT OF LEAD IN PLUMBING SAMPLING

For Sampling Results obtained
From DTSC Sampling conducted
January 1, 2010 through December 31, 2010

FIRST ANNUAL REPORT

Pursuant to Health and Safety Code section 25214.4.3

DEPARTMENT OF TOXIC SUBSTANCES CONTROL



California Environmental Protection Agency
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

2011 REPORT OF LEAD IN PLUMBING SAMPLING

For Sampling Results obtained From DTSC Sampling conducted
January 1, 2011 through December 31, 2011

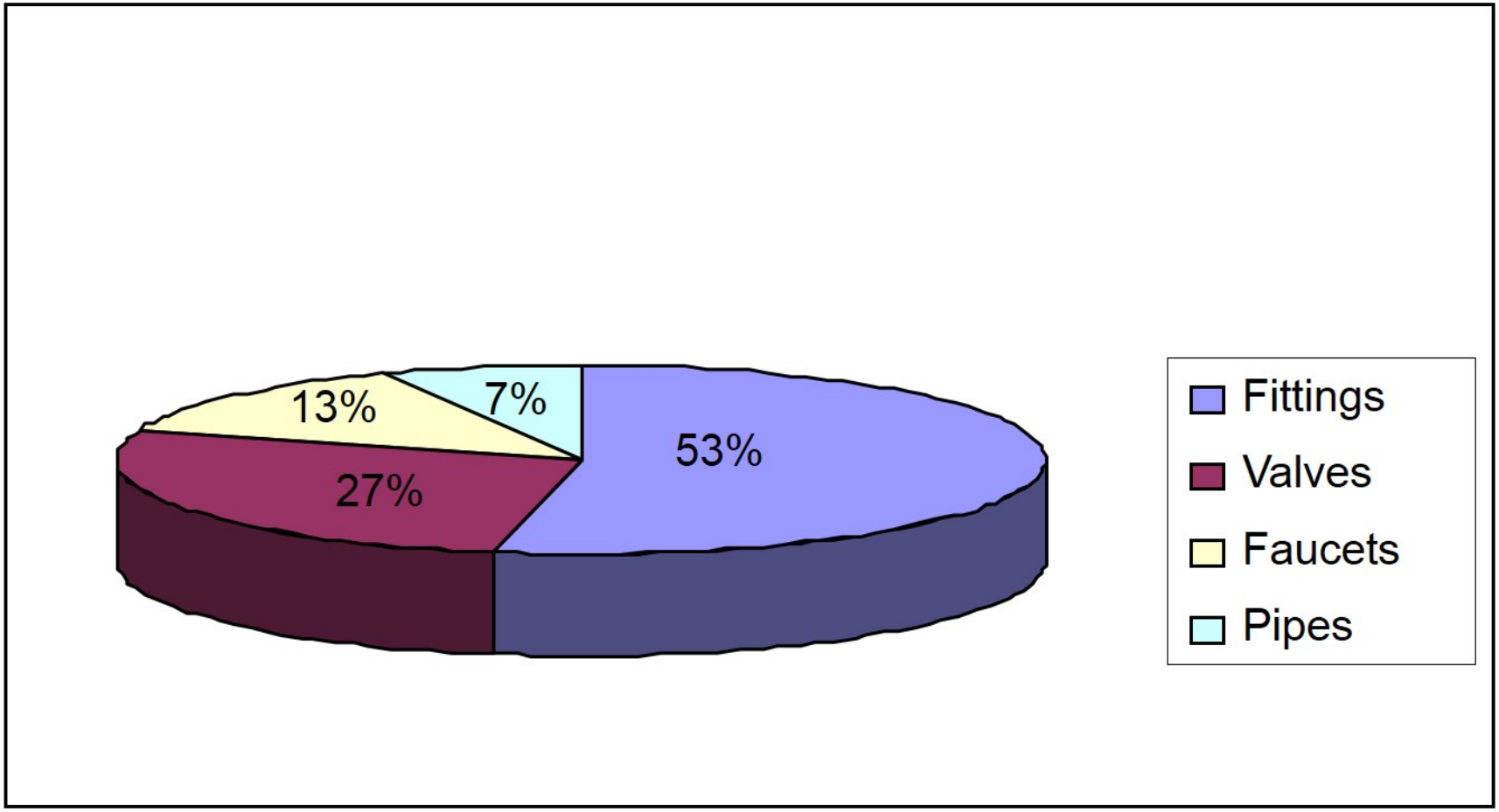
SECOND ANNUAL REPORT

PURSUANT TO
HEALTH AND SAFETY CODE SECTION 25214.4.3

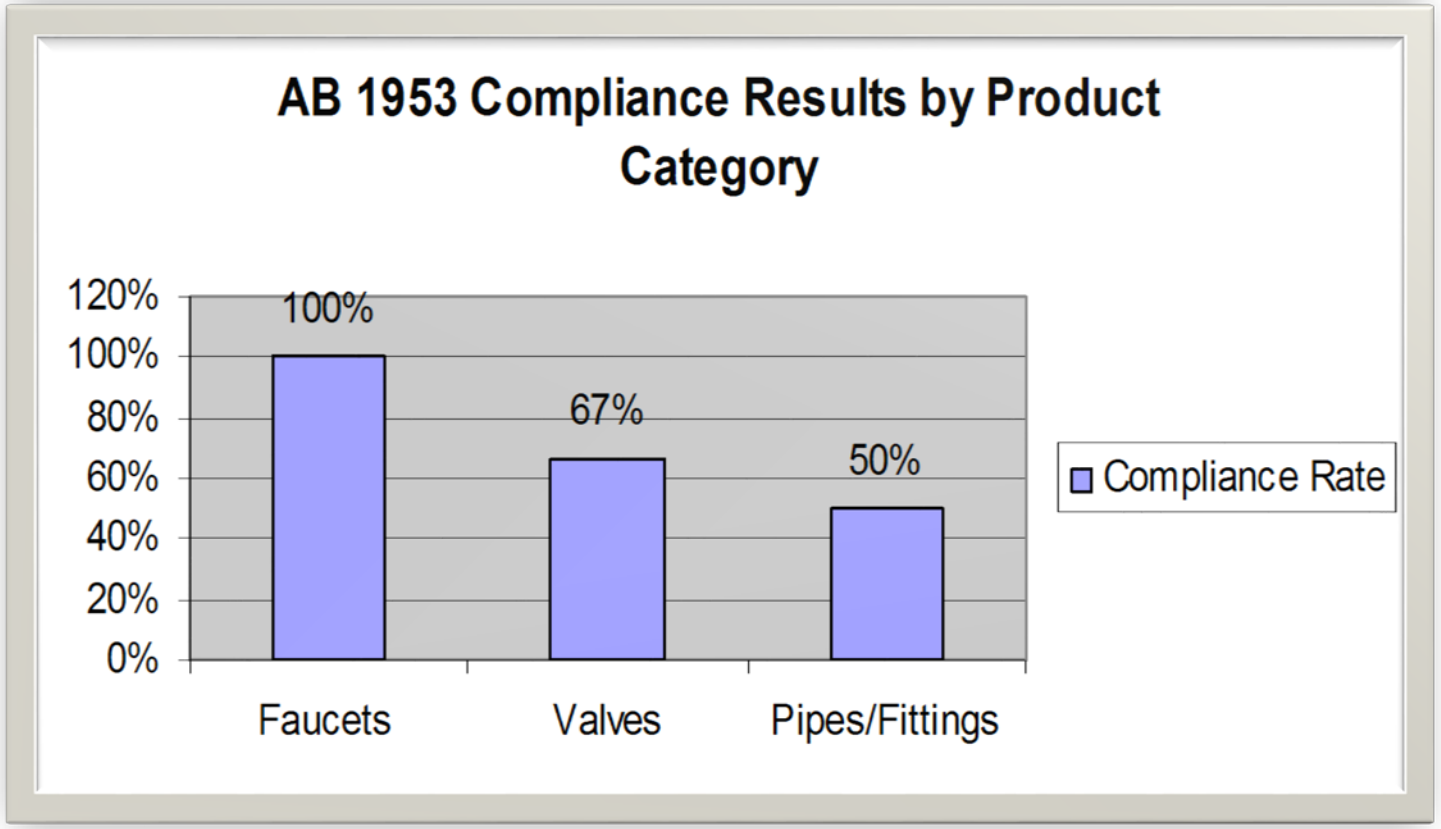
FEBRUARY 2013

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

2010 Testing by Product Type

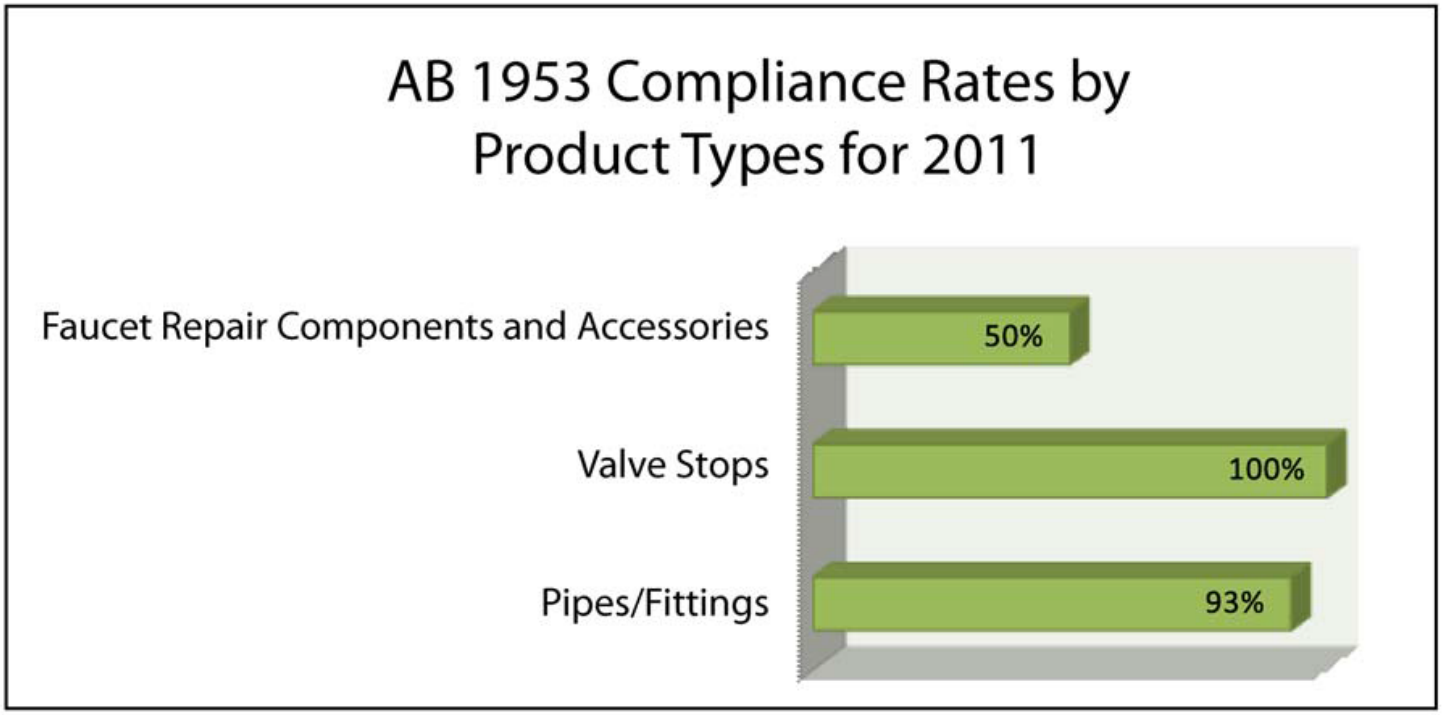


2010 Annual Report results

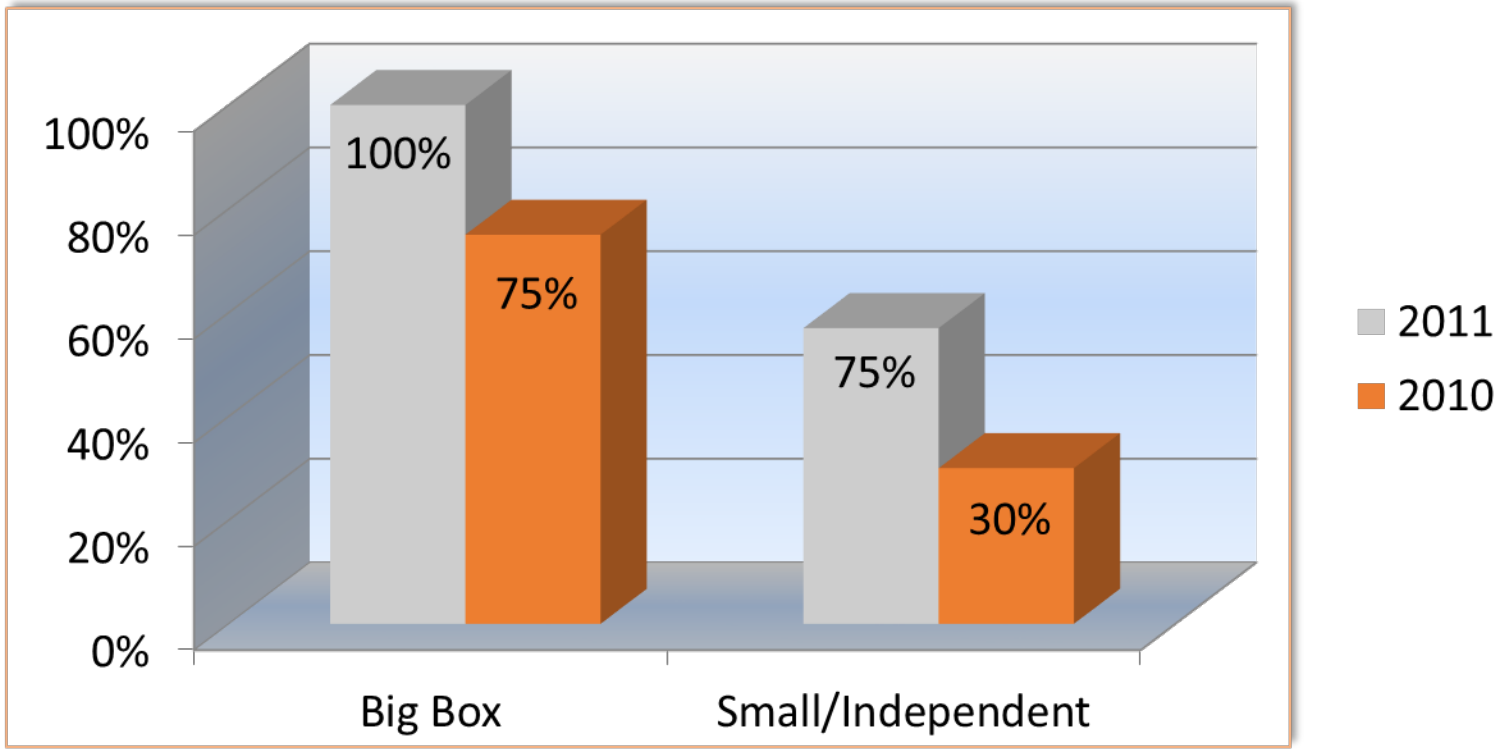


2011 Report

2011 Report



Comparative Testing Results by Year



Regulatory Authorities Con't

- The California Legislature gave enforcement authority over the new lead plumbing standards in Health and Safety Code section 116875 to "the appropriate state and local building and health officials" (see Health & Saf. Code, § 116880).
- Lead free standards violations may also be enforced through a civil action under the California Unfair Competition Law by the Attorney General, district attorneys, or city attorneys.

Regulatory Authorities Con’t

- While DTSC is required to conduct limited testing and evaluate compliance to the lead free standards, enforcement authority of the lead free standard was not given to DTSC.

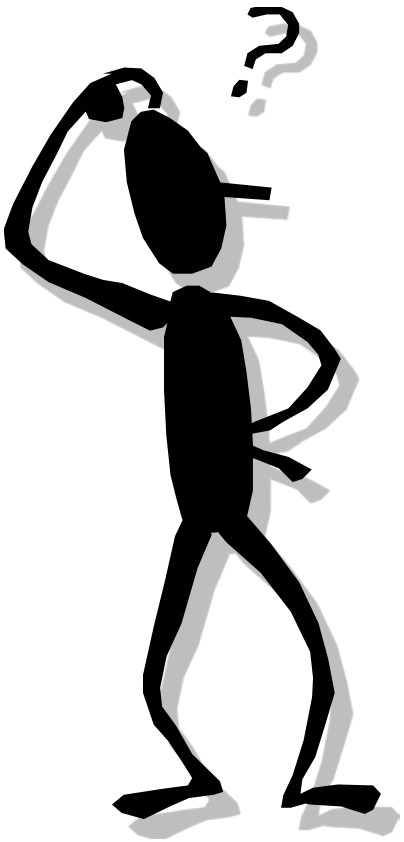
Concerns

- Regrettable Substitutes? Cadmium in lead free components?
- Availability of information, data gaps
- Regulatory gaps and coordination between agencies
- Resources

Resources

- DTSC's lead in plumbing page
  - http://www.dtsc.ca.gov/PollutionPrevention/LeadInPlumbing.cfm

Questions?



- Karl Palmer
- Karl.palmer@dtsc.ca.gov

Implementing the Reduction of Lead In Drinking Water Act:

A Utility Perspective

Nicole Charlton, P.E.

Philadelphia Water Department

Bureau of Laboratory Services

Overview

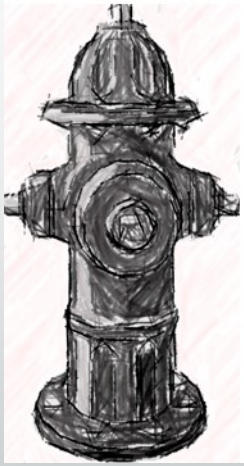
- Background
- Effected utility assets
  - Issues with interpretation
  - Changes to business processes, procurement and capital budgets
- Ensuring compliance
- Outcomes

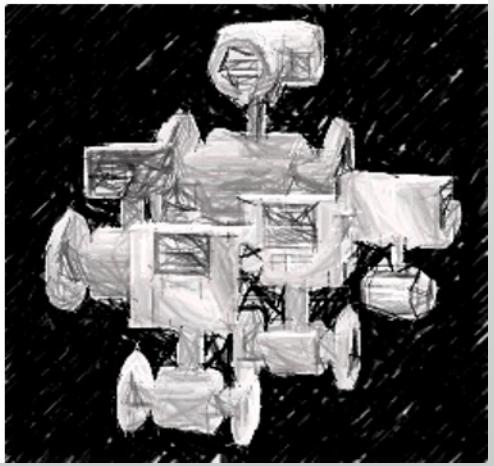
Background

- The Reduction of Lead in Drinking Water Act was signed into Law in 2011
- Effective date: January 4, 2014
- Amended section 1417 of the Safe Drinking Water Act, essentially changing the definition of "lead-free"
- Aimed to continue reduction of lead in drinking water through control of materials entering plumbing systems

What Assets Did This Affect?

- Pipes, valves and fittings (particularly brass), impellers
- Backflow Preventers
- Fire Hydrants
- Water Meters





Pipes, Valves, Fittings and Impellers

- Lead pipe is a thing of the past
- However, valves and fittings still contain some lead
  - Existing inventory had to be scrapped
- Guidance on product application in drinking water process streams is limited; trial and error can be costly.
- Outreach to purchasers, plumbers and contractors
- Change may be needed in:
  - Procurement process
  - Design and construction specifications

Backflow Preventers

- Backflow preventers intended for potable use must be lead-free
- Those specifically intended for non-potable use were exempt
  - Fire services
  - Requires clear demarcation
- Enforcement would be challenging
- Some utilities chose to only allow all lead-free devices through ordinance
- Outreach to plumbers and backflow technicians

Fire Hydrants

- When first introduced, hydrants were thought to be exempt
- FAQ issued in Fall 2013 stated hydrants were included
- Manufactures and vendors weren't ready with replacements
- Would have resulted in a massive stranded inventory
- Hydrants are not intended for potable use
- Community Fire Safety Act of 2013 exempted hydrants

Water Meters

- Some manufacturers weren't ready to provide lead-free meters
- Some utilities had to change procurement processes
- Meters in place that would have been refurbished had to be scrapped
  - Can only reinsert a refurbished meter in its "original" location
  - Change in business process
  - Additional cost
- Budgets for meter replacement increased substantially
- Existing inventory had to be scrapped

How Do We Ensure Compliance?

- Reliance on voluntary certifications
- Product markings are critical
- Changes in business processes
  - Design specifications
  - Construction specifications
  - Procurement processes
- Field inspections
- Authority in Ordinances

Outcomes for Utilities

- Utilities have successfully implemented the Reduction of Lead in Drinking Water Act
  - Not possible without substantial effort by water sector partners, including:
    - Manufacturers
    - Wholesale distributors
    - Retailers
    - Standards organizations
    - Certification entities
- Implementation and ensuring continued compliance will be costly
  - Stress on capital and operating budgets
- The devil is in the details
  - Late interpretations made for hectic implementation
  - Still learning lessons on product applications

Questions?

Any images provided are for illustration purposes. Specific items shown may or may not meet current lead-free criteria. Inclusion of product names is not intended to be a product endorsement.

EPA WEBINAR

REDUCTION OF LEAD IN DRINKING WATER ACT

APRIL 14, 2015

Implementation of the Reduction of Lead in Drinking Water Act View of the Plumbing Manufacturers

Presentation by:

Barbara C. Higgens, CEO

Plumbing Manufacturers International

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OVERVIEW

I. Background on PMI

II. Overview of the Reduction of Lead in Drinking Water Act (RLDWA)

III. Questions Posed by EPA on RLDWA and Impact on Plumbing Manufacturers

PMI OBJECTIVES FOR RLDWA

- **Clarify and Harmonize Language**
- **Clarify Definitions and Terms**
- **Clarify Intent**
- **Clarify Exemptions**

PLUMBING MANUFACTURERS INTERNATIONAL

The views expressed in this presentation are those of the author(s) and do not necessarily represent those of the U.S. EPA

PLUMBING MANUFACTURERS INTERNATIONAL (PMI) BACKGROUND

- **PMI is the major trade association for plumbing product manufacturers and our members produce 90% of the plumbing products used in the U.S.**
  - Manufacturing facilities located in 18 states
  - Directly employ over 25,000 workers across the country
  - Products found at home improvement stores, kitchen & bath showrooms, hardware stores, supply houses, and distributors
  - Distributed in all 50 states
  - Produce kitchen, bathroom and commercial faucets; toilets; showerheads; bath tub spouts; sinks; urinals; bathtubs…

LEAD IN PLUMBING FIXTURES

- **Lead has traditionally been used because of its unique ability to resist corrosion, prevent pinholes and facilitate machinability in forming brass and bronze plumbing products**
- **The plumbing manufacturing industry has taken significant steps to reduce lead content**
  - **1986** - EPA set standards limiting concentration of lead in public water systems, & defined "lead free" pipes as: – Solders and flux containing not more than .2% lead – Pipes and pipe fittings containing not more than 8% lead

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2006: STATES TOOK THE LEAD TO REDUCE LEAD CONTENT

- **California Bills – Effective January 2010**
  - 2006 – Enacted AB 1953 - Defines "Lead Free" to mean not more than 0.2% lead when used with respect to solder and flux and, not more than a weighted average of 0.25% when used with respect to the wetted surfaces of pipes and pipe fittings, plumbing fittings, and fixtures
  - 2008 – Enacted SB 1334 – Requiring 3rd Party Certification
    PMI sponsored legislation to require 3rd party certification
  - 2008 - Enacted SB 1395 – Requires State Testing & Evaluation

STATES WITH "LEAD FREE" REQUIREMENTS CONTINUED…

- **2008 – Vermont enacted Act 193 –**
  Effective January 2010
- **2010 – Maryland enacted House Bill 372 -**
  Effective January 2012
- **2011 – Louisiana enacted House Bill 471 -**
  Effective January 2013

PMI LED & SUPPORTED EFFORTS TO HARMONIZE LEAD PRODUCT CONTENT REQUIREMENTS NATIONWIDE

- **PMI was a key proponent of the RLDWA and worked in bipartisan fashion on Capitol Hill to secure its passage, with a broad coalition of industry & water organizations**
- **PMI supports a national approach to achieve federal consistency instead of a patchwork of state standards**
- **PMI pushed for 3-year implementation timeframe to ensure manufacturers time necessary to convert their manufacturing lines, but also to allow our customers to transition their inventory**

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PMI EDUCATION & OUTREACH ON RLDWA

- **PMI and its members worked diligently to educate suppliers, distributors, engineers, installers, and the public about the manufacture, distribution and installation of lead-free plumbing products that are required under RLDWA**

- **PMI was a founding member of *Get the Lead Out Plumbing Consortium***
  - Educated thousands of plumbers, engineers, consumers about the RLDWA in 2013
  - Individual PMI member companies initiated outreach campaigns with customers and consumers

REDUCTION OF LEAD IN DRINKING WATER ACT KEY PROVISIONS

- **Bill (S.3874) - signed by President Obama January 4, 2011 - Effective January 4, 2014**
- **Amends the Safe Drinking Water Act**
  - The amended definition of "lead free*" is:
    - 0.20% max lead for solder and flux
    - 0.25% max lead for products by weighted average
    - **Multiple component products** are calculated to address total wetted exposure based upon wetted surface area of each component and that component's lead content by percentage

**** Lead free refers to <0.25% weighted average lead content in relation to the wetted surface of the pipe, fittings, and fixtures in systems delivering water for human consumption***

ENFORCEMENT OF THE RLDWA

- RLDWA is silent on how it would be enforced
- **States have taken responsibility for enforcement through state or local building/plumbing codes**
  - States may assign other responsible parties (i.e. DTSC in California)

QUESTIONS POSED BY EPA

1. ***What are the challenges and opportunities manufacturers face in producing pipes, fittings and fixtures that meet the new RLDWA requirements?***
2. ***What mechanisms have manufacturers used to demonstrate to regulators and/or consumers that their products meet the RLDWA requirements?***
3. ***What parts of the RLDWA are confusing or difficult for manufacturers to comply with and how were questions and/or compliance difficulties overcome?***
4. ***How have firms complied with state specific (i.e., CA, VT, MD) "lead-free" requirements?***

What are the challenges and opportunities manufacturers face in producing pipes, fittings and fixtures that meet the new RLDWA requirements?

CHALLENGES MET TO COMPLY WITH RLDWA

- **Compliance with RLDWA involved significant resources as companies had to redesign and/or modify their:**
  - Products - Manufacturing Processes
  - Markings - Packaging & Labeling
  - Certification Process - Product literature
- Many products and processes required complete re-engineering
- New certification for all brass products
- Destruction of inventory that was meant to be used for warranty replacement for discontinued product lines

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What mechanisms have manufacturers used to demonstrate to regulators and/or consumers that their products meet the RLDWA requirements?

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MECHANISMS MANUFACTURERS USED TO DEMONSTRATE PRODUCTS MEET THE RLDWA

- **PMI Recommendation: Support Current System of 3rd Party Certifying under NSF 61/372**
  - Manufacturers use **3rd party certifier marks on their products and/or packaging labeling** to indicate compliance with RLDWA as required by the plumbing codes
  - Those marks already include all mechanical performance requirements, as well as the material compliance requirements to protect drinking water and public health, through NSF / American National Standards Institute (ANSI) = *Annex G of NSF/ANSI Standard 61 or NSF/ANSI Standard 372*
  - Process has been in place for over 20 years

NSF/ANSI 372

- ***Specifically developed standard to address testing protocols for lead content***
  - NSF committee created separate standard from NSF 61
  - 0.25% max lead for products by weighted average
  - Multiple component products are calculated to address total exposure
  - Drinking water products must also comply with stringent leachate requirements of NSF 61
  - Several agencies can provide certification/listing of compliance

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The views expressed in this presentation are those of the author(s) and do not necessarily represent those of the U.S. EPA

MECHANISMS USED TO MEET LABELING REQUIREMENTS

- Labeling requirements are prescribed by the certifiers for the NSF 61 standard, which EPA helped to write.
- **Several answers provided by the EPA in the FAQs add confusion by referencing agency's desire to add labels**
  - Labeling requirements are well-established and being used by manufacturers to comply with previously enacted state statutes addressing lead reduction in plumbing products
  - Given the aesthetic nature and/or size constraints of some plumbing products, the product packaging is labeled vs the actual product

MANUFACTURER COMPLIANCE WITH RLDWA REQUIREMENTS

Third-Party Certification

- **PMI manufacturers use NSF 372 and NSF 61/9 third-party certification, plus applicable certification marks on their products, product packaging, literature**
- **Certificate identifies products:**
  a) compliant with Section 1417(d) of the Safe Drinking Water Act
  b) compliant with NSF / ANSI 372-2010; and,
  c) may include the term “Low Lead” with the certification mark

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MANUFACTURER COMPLIANCE WITH RLDWA REQUIREMENTS

Continuous Compliance

- **Plumbing manufacturers are required to go through a continuous compliance process of the certified products to demonstrate compliance with NSF-372, CA, VT, etc.**
  - Certification bodies conduct on-site audits at manufacturing sites and warehouses; select ad-hoc samples and send them to outsides labs for Low Lead compliance tests

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LEAD FREE MARKINGS

PMI members use markings as outlined in EPA's September 2013 Document - How to Identify Lead-Free Certification Marks for Drinking Water Systems and Plumbing Materials to identify compliant products

EXAMPLES OF LEAD FREE MARKINGS

NSF – www.nsf.org

Certified to NSF/ANSI 372

Certified to NSF/ANSI 61-G

UL – www.ul.com

Truesdail Labs – www.truesdail.com

Meets:
NSF/ANSI 61-8 (Current Year)
California AB 1953 (2006)

IAPMO – www.iapmo.org

LOW-LEAD
UPC

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EXAMPLES OF LEAD FREE MARKINGS (CONT'D)

WQA – www.wqa.org

Intertek – www.intertek.com

CSA – www.csa-international.org

ICC Evaluation Service – www.icc-es.org

EPA QUESTION #3

What parts of the RLDWA are confusing or difficult for manufacturers to comply with and how were questions and/or compliance difficulties overcome?

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PMI RECOMMENDATIONS

- **Clarify and Harmonize**
  - **Language,**
  - **Terms,**
  - **Definitions,**
  - **Exemptions**

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RLDWA PROVISIONS CONFUSING "ANTICIPATED" VS "INTENDED"

- **PMI Recommendation: Follow California law and use "INTENDED" in final regulation**
- **Federal Law – Applies to any product used in systems where water is anticipated to be used for human consumption**
  - Adds confusion and contradicts state laws
  - **California/Vermont/Maryland/Louisiana** – laws in place which apply to any product **intended** to convey or dispense water for human consumption through drinking or cooking

CONFUSING ISSUES: REPLACEMENT PARTS

- **PMI Recommendation: Exempt Replacement Parts**
  - The RLDWA is **not** intended to prevent replacement plumbing manufacturers from supplying replacement parts for devices that were installed pre-2014 and remain under warranty
  - When plumbing manufacturers discontinue a product line, they retain a supply of replacement parts in-stock to meet customer needs and fulfill warranty obligations
  - As EPA notes in the FAQs (#23-30) for products that comply with the Act (and thereby comply with NSF 372), when a consumer needs a replacement for a worn mechanical part, the Original Equipment Manufacturer (OEM) is allowed to sell the same OEM part

CONFUSING ISSUES: EXEMPTED PRODUCTS

- **FAQs released by EPA creates confusion regarding exempted products by making a strong recommendation for the labeling of them**
- **Consistency between the EPA FAQ document and final regulation is needed**
- **Because of robust labelling requirements for RLDWA compliant products, it is not necessary for noncompliant products to also be labeled**

CLARIFICATION: EMERGENCY SHOWERS AND EYE AND FACE WASH FIXTURES

- **PMI Recommendation: Exempt the Use of Emergency Drench Showers, Eye and Face Wash Fixtures from RLDWA**
  - There is no anticipated use as a source of water for human consumption
  - These products are not specifically noted in NSF 61

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NEED FOR CONSISTENT & INDUSTRY ACCEPTED DEFINITIONS

- **PMI Recommendation: Need Harmonization of Key Plumbing Product Definitions which are drawn from:**
  - Uniform Plumbing Codes (UPC) - American Society of Sanitary Engineering (ASSE) dictionary - International Plumbing Code (IPC), all recognized throughout the plumbing industry
- **Pipe - A cylindrical conduit or conductor conforming to the particular dimensions commonly known as "pipe size"**
- **Pipe Fitting- a piece (as a coupling or elbow) used for connecting pipe lengths or to change direction**
- **Nonpotable – water not safe for drinking, personal, or culinary use**

NEED FOR CONSISTENT & INDUSTRY ACCEPTED DEFINITIONS - CONTINUED…

- **Plumbing Fitting or Fixture Fitting - Fitting that controls the volume and/or directional flow of water and is either attached to or accessible from a fixture, or is used with an open or atmospheric discharge**
  - i.e. kitchen faucets or bathroom lavatory faucets
- **Plumbing Fixtures - Receptacle or device that is connected to a water supply system or discharges to a drainage system or both. Such receptacles or devices require a supply of water; or discharge liquid waste or liquid-borne solid waste; or require a supply of water and discharge waste to a drainage system**
  - Examples include sinks, water closets, bidets, showers and tubs

NONCOMPLIANCE WITH RLDWA

- **Issue: Some bad actors continue to simply choose to ignore RLDWA requirements**
  - In particular, some **imports** of uncertified low lead plumbing products being sold in U.S.

- **PMI Recommendation: Stronger Enforcement**

  By:
  - US Customs and Border Protection
  - The Federal Trade Commission

How have firms complied with state specific (i.e., CA, VT, MD) "lead-free" requirements?

YES - PMI MEMBERS COMPLY WITH STATE SPECIFIC "LEAD-FREE" REQUIREMENTS

- **PMI worked with CA, VT, MD, LA to harmonize lead content and Third Party certification to avoid patchwork of conflicting requirements**
  - State requirements for lead content are in alignment with Federal requirements of the RLDWA
  - As noted, Federal language and State language must be harmonized
  - PMI members utilize national prescriptive standard for the "lead free" requirements = **NSF 372 (In addition to performance standard: NSF 61)**
  - Third Party Certification identifies products as meeting state requirements and may include the term "Low Lead" with the certification mark

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QUESTIONS?

- **Thank You!**
- **Contact:**

» **Barbara C. Higgens**
CEO/Executive Director
Plumbing Manufacturers International
Tel: 847-481-5500
bhiggens@safeplumbing.org
www.safeplumbing.org
#WhyPlumbingMatters

Potential Regulatory Options

Regulatory Options Under Consideration

- Revise existing regulations at 40 CFR 141.43 to be consistent with the current version of Section 1417, including the new lead free requirements set forth in the RLDWA.

- Consider options for labeling and certification.

Codify Statutory Requirements

- Revise allowable lead content to reflect the new RLDWA limit (weighted average of 0.25%)
  - Currently says 8%

- Add the RLDWA specified methodology to calculate the weighted average.

- Add the RLDWA language exempting certain plumbing products from the lead free requirements (i.e. toilets, bidets, etc)

Potential Regulatory Options

EPA has identified two areas where new requirements could make SDWA Section 1417 more nationally consistent.

1. Labeling of Lead Free and Exempted Products
2. Demonstrating Compliance with Section 1417 Lead Free Requirements

#1: Labeling Lead Free and Exempted Products

- Section 1417 identify three categories of products
  - Covered products that must be “lead free”
    - pipes, pipe or plumbing fittings or fixtures, solder, and flux
  - Products exempted because they are used exclusively for non-potable services, and
  - Products specifically exempted under Section 1417 (i.e. toilets, bidets, etc)

Labeling Lead Free Products

- Pipes, pipe fittings, plumbing fittings or fixtures must meet the new definition of “lead free”
- Most manufacturers currently label their “lead free” products
  - Labeling may differ among manufacturers
- Labeling could be required of the products, packaging, or both product and package

Labeling Lead Free Products

- What are the advantages of labeling these products?
- What are the challenges associated with labeling these products?
- What information is available regarding costs of labeling products and/or packaging?

Labeling Exclusively Non-Potable Use Products

- Some products may be exempted from the lead prohibition if they are used exclusively for non-potable services.

- Labels may be a way for manufacturers to identify a product that is not lead free and is used exclusively for non-potable service.

Labeling Non-Potable Use Products

- What are the advantages of labeling these products?
- What are the challenges associated with labeling these products?
- What information is available regarding costs of labeling products and/or packaging?

#2: Demonstration of Compliance with Lead Free Requirements

- The RLDWA removed the federal requirement for plumbing fittings and fixtures to be in compliance with third-party lead leaching standards

- Local building and state plumbing codes often require third-party certifications.

- These third party certifications include
  - NSF/ANSI Standard 372
  - NSF/ANSI Standard 61

Certification of Compliance

- EPA is considering for lead free products requiring either
  - third-party certification,
  - self-certification, or
  - a combination of third-party and self certification.

Certification of Compliance

- What are the benefits of certification for manufacturers, utilities, regulators and consumers?
- Who should conduct certifications?
- What are the barriers to certifying products?
- What are the costs associated with product certification?

If you would like to provide additional comments or information:

Email: leadfreeact@epa.gov

EPA will accept comments through April 30.

Appendix B: Public Comments

AMERICAN
FLOW CONTROL
THE RIGHT WAY

April 21, 2015

Mr. Brian D'Amico
Office of Ground Water and Drinking Water
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Stakeholder Input
Reduction of Lead in Drinking Water Act (RLDWA)

Dear Mr. D'Amico:

AMERICAN Flow Control is one of the largest U.S. manufacturers of valves and fire hydrants in the utility industry. The iconic American-Darling and Waterous brands our company produces have been manufactured in the United States since the late 1,800's. To that point we support the Reduction of Lead in Drinking Water Act, the changes in the definition of lead free and the clarification offered to that law under the "Community Fire Safety Act of 2013". Given the necessary time we requested corporately and as a member of organizations such as the American Water Works Associations (AWWA), our company has proactively made all necessary changes to fully comply with the original interpretation offered by the USEPA.

We appreciate the USEPA initiating a stakeholder meeting relative to the implementation of the Act. The following is a summary of our comments relative to the meeting:

- We request the USEPA require a third-party certification by NSF, UL, or other recognizable agency. This establishes credibility, as well as consistency in the expectations of the public.
- We believe the USEPA should specifically recognize NSF/ANSI 61-G and NSF/ANSI 372 as the method for demonstrating compliance with the RLDWA. This system is currently in place and is working very well. The effort creates consistency in the interpretation of the EPA rule making. NSF standards were used as a basis in developing the previous federal lead-free standard and the some of the state requirements developed prior to P.L. 111-380. As referenced, NSF standards are ANSI certified and therefore provide the public international traceability.
- For those same reasons we ask that the USEPA not develop additional criteria demonstrating compliance of the RLDWA. Additional criteria will only create confusion.
- We ask the USEPA require a defined label or indelible marking requirement, specifically NSF/ANSI 61-G and NSF/ANSI 372, for compliance with SDWA.

- We support the enforcement of the RLDWA requirements. Changes in regulations are costly for manufacturers. Unfortunately if they are not enforced, the domestic manufacturer can be disadvantaged and become victim to offshore producers that may exhibit a lack in care, concern or inclination to abide by USEPA requirements.
- We do not support the use of "NL" as sole a mark. The use of "NL" allows for potential self-certification, potential differences in interpretation and confusion on the part of the consumer that all components in a multi-component device are 100% lead-free thus conflicting with the 0.25% maximum weighted average criteria required under P.L. 111-380. This also potentially allows for non-compliant product, especially from non-domestic sources, to be marked without any potential recourse or accountability. Should there be no other option, such as in the case of space limitations, we suggest the USEPA require supplemental marking by label or tag that ensures a demonstration of compliance of the RLDWA by a third-party, specifically to the aforementioned NSF criteria.
- We strongly feel as currently defined in the EPA - FAQ documents (Q23 and Q24) that products / devices should be evaluated as a whole, rather than individual component parts, when demonstrating they meet the definition of lead free.
- We do not support a "not for potable use" marking for product or package. Compliance with and the protection afforded by the RLDWA through the aforementioned marking requirements are more than adequate. Previous versions of the law prior to P.L. 111-380 did not require non-potable labeling. There exists no precedent for this type of "reverse marking".

Thank you in advance for your consideration of these points. We support the intentions of the RLDWA.

Sincerely,

[redacted]

Derek B. Scott
AMERICAN Flow Control
[redacted]

ASSOCIATION OF HOME APPLIANCE MANUFACTURERS

1111 19th Street NW ➢ Suite 402 ➢ Washington, DC 20036
t 202.872.5955 f 202.872.9354 www.aham.org

April 30, 2015

Via E-Mail

Rebecca M. Clark,
Acting Director, Office of Ground Water and Drinking Water

Brian D'Amico
Office of Ground Water and Drinking Water

U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

leadfreeact@epa.gov

Re: AHAM Comments on Notice of a Public Meeting on Regulations Implementing Section 1417 of the Safe Drinking Water Act: Prohibition on Use of Lead Pipes, Solder and Flux

Dear Ms. Clark and Mr. D'Amico:

The Association of Home Appliance Manufacturers (AHAM) respectfully submits the following comments to the Environmental Protection Agency (EPA) on its Notice of a Public Meeting on Regulations Implementing Section 1417 of the Safe Drinking Water Act: Prohibition on Use of Lead Pipes, Solder and Flux; 80 Fed. Reg. 17020 (March 31, 2015).[1]

AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's membership includes over 150 companies throughout the world. In the U.S., AHAM members employ tens of thousands of people and produce more than 95% of the household appliances shipped for sale. The factory shipment value of these products is more than $30 billion annually. The home appliance industry, through its products and innovation, is essential to U.S. consumer lifestyle, health, safety and convenience. Through its technology, employees and productivity, the industry contributes significantly to U.S. jobs and

[1] We note that EPA's Notice of a Public Meeting did not include an agenda or provide stakeholders with topics on which EPA sought feedback. It was, thus, impossible to prepare meaningful comments on the specific issues upon which EPA sought information during the meeting. Accordingly, we appreciate that EPA allowed for subsequent written comments. But there was no indication that it would do so in the notice and, so, the comment period was extremely short making it difficult to fully consider the issues. In the future, EPA should provide stakeholders with topics for discussion in advance and clearly set forth the deadline for subsequent written comments. For example, a Request for Information format would be preferable for this sort of proceeding.

economic security. Home appliances also are a success story in terms of energy efficiency and environmental protection. New appliances often represent the most effective choice a consumer can make to reduce home energy use and costs.

AHAM supports EPA and its aim to reduce lead in drinking water. As we indicated in response to EPA's "Reduction of Lead in Drinking Water Act Frequently Asked Questions" (FAQs), AHAM does not believe that the Safe Drinking Water Act, as amended by the Reduction of Lead in Drinking Water Act (SDWA or the Act), applies to automatic dishwashers. In addition, we do not believe EPA should require labeling or third party certification in its regulations because there would be no benefit to public health that would justify the significant cost and burden such labeling and certification would impose.

I. Dishwashers Should Not Be Included In the Act's Scope of Coverage

Since the addition of the lead free requirement in 1986, AHAM has understood that the SDWA does not apply to products that are not plumbed to a potable water supply (e.g., a coffee maker) or products that are not intended to deliver water intended for human consumption (e.g., dishwashers and clothes washers). As opposed to refrigerators with through the door water and ice, these other appliances do not include "plumbing in a residential or nonresidential facility providing water for human consumption." *See* SDWA § 1417(a)(1)(A)(ii). In AHAM's view, the 2011 amendments to the SDWA *narrow* the scope of the law's coverage by adding a specific exemption for certain products, including, "pipes, pipe fittings, plumbing fittings or fixtures, including backflow preventers, that are used exclusively for nonpotable 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." *See* SDWA § 1417(a)(4)(A) (emphasis added). That list is not intended to be exclusive—it is illustrative, as indicated by the phrase, "or any other uses where the water is not anticipated to be used for human consumption." The amendments also specifically exempt certain products including, but not limited to toilets, bidets, urinals, and shower valves. *See* SDWA § 1417 (a)(4)(B). Accordingly, similar to the products that the SDWA now specifically exempts, dishwashers are not anticipated to deliver water for human consumption and must not be interpreted to be included in the scope of the law. We, along with other relevant authorities, have understood this to be the case since 1986 and we did not read the 2011 amendments as changing that interpretation.[2]

EPA's FAQs, however, characterized dishwashers as being covered by the Act's requirements. EPA indicated to AHAM in December 2013 that it interpreted the Act as covering dishwashers based on the language in the amendment indicating that excluded products are those that "are used exclusively for nonpotable services." EPA based its conclusion on a prior statement that human consumption includes "dishwashing." AHAM reiterates that it does not accept this interpretation or the appropriateness of the process that led to this conclusion.

[2] The other amendment redefines the term "lead free."

A. Dishwashers Do Not Deliver Water Anticipated to be Used for Human Consumption

Despite EPA's prior statement that human consumption includes dishwashing, dishwashers and their water line connections do not deliver water intended for human consumption and it is not anticipated that the water passing through the dishwasher will be used for human consumption. In general, dishwashers use water supplied from a potable water system with a required back siphoning device in place. This device ensures that water entering the dishwasher does not reenter the potable water distribution system. During a wash cycle, water enters the dishwasher and, depending on the location in the cycle, is mixed immediately with detergents or rinse agent and is exposed to food waste on the dishes. Several times during a normal wash cycle the water is drained and refilled. At the end of the cycle, the water is intended to be drained and dishware is to be dried. Thus, as a practical matter, any amount of lead exposure would be *de minimis* at most. Dishwashers typically fill in about 90 seconds or less leaving little time for any amount of lead that was contained in a part to contaminate the water. The last rinsing fill of the dishwasher is mixed with a rinse agent. Thus, the final water in the dishwasher is not potable water but rather a mixture of the water and rinse agent.

In addition, as a matter of common practice, consumers dry dishware (either via a heated dishwasher cycle option or hand drying) before storing or using it for food or beverage consumption. And, to the extent water does remain on dishware after the dishwasher cycle is complete, it is generally located on the underside of cups or bowls, not on the eating surface, meaning that residual water is not reasonably assumed or destined to be used for human consumption. Water left on the dishes at the end of a wash cycle (after the final rinse) is miniscule. At the end of the final rinse, water left on the dishes runs off of the dishes (rinse agent further improves that run-off)—the water is in a thin film of 0.2 millimeters or less in thickness, which is less than two sheets of paper. If the door is opened at the end of a wash cycle, the dishes will dry immediately in the presence of low humidity. Finally, based on consumer observation studies, when a dishwasher user encounters remaining water on the dishes, the typical reaction is to determine that the glass or dish is still soiled and wash or rinse the dish under the kitchen tap, not drink the water or drink from the glass with dirty residue.

Accordingly, dishwashers are used exclusively for nonpotable services—dishwasher water is not reasonably anticipated to be used for human consumption. And, even if it were, it is incredibly unlikely that the water that passes through the dishwasher and its connections would contain lead.

B. Other Available Sources and Authorities Support AHAM's Interpretation

Several other sources support AHAM's interpretation. The 2011 amendments' legislative history indicates that the focus of SDWA's reach is faucets. *See, e.g.,* 156 Cong Rec H 8617 (Dec. 17, 2010) (stating that the "bill will update the national lead content standard to nearly eradicate lead in faucets and fixtures which currently contribute up to 20 percent of human lead exposure, according to the EPA[]" and focusing its discussion around faucets). And EPA, on its website, specifically indicates that lead in the water used to wash dishes or clothing is not a

concern.[3] Furthermore, elsewhere on EPA's website, EPA indicates that dishwasher detergent is poisonous if swallowed—this conflicts with EPA's interpretation that dishwashers provide water suitable for human consumption.[4]

Guidance on California's lead in drinking water law, upon which we understand the 2011 Amendments to the SDWA were based, exempts "devices that can reasonably be described as not intended to convey or dispense water for human consumption, including flexible plumbing connectors and flexible risers not intended for potable water applications (e.g., clothes washing machines, dishwashers)."[5] Guidance on the Vermont Lead in Consumer Products Law lists several fixtures not subject to the statutory lead limit because those fixtures do not convey water for human consumption.[6] That list includes fixtures for machines that wash clothes or dishes. NSF Standard 61, which was developed by a collection of health professionals, scientists, toxicologists, and other experts, in sections 9.1 states that it covers certain products that "are intended to dispense water for human ingestion" and, in section 9.1.2, lists "flexible plumbing connectors and flexible risers not intended for potable water applications (for example: washing machines, dishwashers, etc.)."

EPA should not deviate from this body of interpretation (and Congressional intent) by adopting an inconsistent approach and including dishwashers as covered by the Act's requirements. Instead, EPA should indicate in its regulations that dishwashers are exempt from coverage under the Act.

C. Even if Dishwashers Are Covered Under the Act, EPA Recognizes That They Easily Satisfy the Act's Requirements

Even if EPA continues to interpret the Act as covering dishwashers, as a class, dishwashers comply with the Act's lead-free requirements (with considerable room to spare). In late 2013 and early 2014, AHAM and EPA met to discuss EPA's characterization of dishwashers in the FAQs and potential methods for acknowledging that dishwashers, as a class of products, are not likely to exceed the statutory lead limits. AHAM appreciates EPA's willingness to hear our concerns and to develop a communication that dishwashers comply with the Act's requirement given the nature of the product and the applicable weighted lead content calculation.

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[3] *See* EPA, *Actions You Can Take To Reduce Lead In Drinking Water*, EPA 810-F-93-001 (June 1993) ("To conserve water, showering, running the dishwasher or the washing machine will also flush the pipes.").

[4] *See* EPA, *Dishwashing Detergent*, *at* http://www.epa.gov/kidshometour/products/dliquid.htm ("Automatic dishwashing detergents have been known to produce skin irritations or burns. They are poisonous if swallowed.").

[5] *Available at* http://ladbs.org/LADBSWeb/LADBS_Forms/Publications/CaliforniaLeadFreeLawRequirements.pdf.

[6] *See* Lead in Consumer Products Law, Vermont Attorney General's Guidance on Plumbing Supplies (Nov. 18, 2009).

In January 2014, after meeting with EPA, AHAM asked its members to provide data regarding a "worst case" lead content scenario. Members calculated the weighted average lead content for a small (or their smallest) dishwasher and evaluated the worst case wetted lead containing parts configuration. In doing the statutory calculation, instead of using the actual lead content of wetted components which contained lead, manufacturers assumed an eight percent lead content, which is many times higher than what would be expected to actually be present in these wetted components. AHAM then aggregated these data by calculating the average. Under that "worst case" scenario, the aggregate weighted average lead content of a dishwasher, based on data from manufacturers representing about 80 percent of dishwasher shipments in 2013, is a mere 0.07 percent, well below the statutory weighted average limit of 0.25 percent with respect to wetted surfaces of fixtures. The actual weighted average lead content for these products is almost certainly much less than 0.07 percent when using the actual lead content in the calculation.

Based on that data, EPA issued a letter, dated February 12, 2014, and attached to these comments at Attachment A, concluding that "using the statutory lead calculation methodology, dishwashers as a class appear to easily meet the definition of lead free (a weighted average of 0.25%) using the existing manufacturing process." That process has not changed, and, thus, we respectfully request that, should EPA not exempt dishwashers from coverage under the Act, EPA expressly recognize in its regulations that dishwashers as a class, under the specific conditions specified in the February 12 letter, comply with the Act's lead free requirements. In the alternative, we ask that, at a minimum, EPA repeat the contents of the February 12 letter in the preamble to the Final Rule.

II. Labeling Will Not Advance Public Health

EPA sought comment on whether it should amend its regulations implementing section 1417 of the SDWA to require labeling of covered products that must be "lead free" as defined by the Act and/or exempted products. EPA suggested that labeling could be required on the products, packaging, or both the product and package. EPA indicated that labels may be a way for manufacturers to identify products that are or are not lead free. EPA asked commenters to describe the advantages, challenges, and costs associated with such labeling.

AHAM would oppose a proposal to require labeling of "lead free" and/or exempt products. Labeling can be a useful way to differentiate products and assist consumers in making purchasing decisions. But, in this case, all a label would do is communicate that the product complies with the law. All products under the Act's scope of coverage that are not exempt must be "lead free" and, thus, a label will not differentiate those products from each other. All a label would do is indicate that the product complies with the Act. Requiring all like products to carry the same label will not communicate any useful information to consumers.

Similarly, there is no purpose in labeling products that are exempt from the Act's requirements. Those products are exempt from the Act's requirements because they do not pose an exposure concern. And because all products that are exempt would carry the same label, a label would not differentiate those products from each other.

Nor would labeling provide a useful differentiation between "lead free" and exempt products. Labeling "lead free" and exempt products may actually confuse consumers because it may make products that are labeled "lead free" appear preferable to those that are labeled as being exempt. It is unlikely that consumers understand the Act's requirements and, therefore, they are unlikely to understand what the different labels actually mean. In any case, it is unlikely that consumers would compare products that are "lead free" with those that are exempt because they are, by definition, different products.

Labeling would also not assist businesses in making purchasing decisions. It is sufficient for manufacturers to rely on supplier self-certifications and documentation supporting compliance.

Furthermore, labeling "lead free" and/or exempt products will add significant cost for manufacturers which, as discussed above, would not be justified by a benefit to public health. Accordingly, EPA should not require labeling. We note that EPA is not proposing (and should not propose) to require labeling under the Toxic Substances Control Act—EPA should be consistent in its approach—there is nothing in the SDWA that differentiates it from TSCA to require labeling.

III. Third Party Certification is Not Necessary

EPA also sought comment on whether it should amend its regulations implementing section 1417 of the SDWA to require demonstration of compliance with lead free requirements. EPA indicated that it is considering requiring third party certification, self-certification, or a combination of third party and self-certification.

AHAM believes that self-certification is enough to demonstrate compliance with the lead free requirements. That self-certification need only require the manufacturer to have sufficient documentation to demonstrate compliance. For example, it should be enough for manufacturers to do the calculation the Act requires and retain the supporting paperwork. Such calculations may be based on documentation provided by component part suppliers.

There are few Federal regulations that require third party certification and AHAM does not believe that circumstances warrant such extreme action in this case. The cost and time required to meet a third party certification requirement would be significant. It does not appear that EPA is concerned about a high occurrence of noncompliance with the Act. Absent such a need, there is no justification to impose such a burdensome requirement on manufacturers. In addition, we question whether EPA has the authority under the Act to require third party certification.

AHAM appreciates the opportunity to submit these comments on EPA's Notice of a Public Meeting on Regulations Implementing Section 1417 of the Safe Drinking Water Act: Prohibition on Use of Lead Pipes, Solder and Flux, and would be glad to discuss these matters in more detail should you so request.

Respectfully Submitted,

[redacted]

Jennifer Cleary
Director, Regulatory Affairs

Attachment A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 12 2014

OFFICE OF WATER

Ms. Jennifer Cleary, Director
Regulatory Affairs
Association of Home Appliance Manufacturers
[redacted]

Dear Ms. Cleary:

I am responding to your correspondences of December 11, 2013; December 20, 2013; and January 23, 2014; as well as your telephone conversation with Brian D'Amico of my staff on January 29, 2014, in which you provide comments and information related to the applicability of the Reduction of Lead in Drinking Water Act (RLDWA) to dishwashers. Thank you for providing information on the weighted average lead content calculation performed for dishwashers.

Under the RLDWA, manufacturers are prohibited from introducing into commerce pipes, plumbing fittings or fixtures, solder or flux that do not meet the applicable requirements of the RLDWA. The Environmental Protection Agency (EPA) believes the RLDWA applies to dishwashers, as they are used for "potable" services as interpreted by EPA. The RLDWA does not require manufacturers to test or certify products in order to demonstrate compliance, and the RLDWA no longer requires plumbing fittings and fixtures to be in compliance with Section 9 of NSF/ANSI Standard 61 (e.g., new endpoint devices). Based on the information you provided (data representing 80% of the dishwashers shipped in 2013) using the statutory lead calculation methodology, dishwashers as a class appear to easily meet the definition of lead free (a weighted average of 0.25%) using the existing manufacturing process.

Thank you again for your interest in our FAQs, and should you have any additional questions please do not hesitate to contact me or have your staff contact Brian D'Amico at 202-566-1069.

Sincerely,

Peter C. Grevatt, Director
Office of Ground Water and Drinking Water

American Water Works Association
Dedicated to the World's Most Important Resource™

Government Affairs Office
1300 Eye Street NW
Suite 701W
Washington, DC 20005-3314
T 202.628.8303
F 202.628.2846

April 30, 2015

Mr. Brian D'Amico
Office of Ground Water and Drinking Water
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Attention: Promulgating Regulations to Implement the Reduction of Lead in Drinking Water Act

Dear Mr. D'Amico:

The American Water Works Association (AWWA) supports "getting the lead out" and doing so by practical and efficient implementation of 42 USC § 300g–6.[1] Implementation of P.L. 111-380 began in January 4, 2014 through the diligent efforts of the water sector. Implementation has been made possible through the proactive efforts of the standards development organizations, manufacturers, wholesale suppliers, and utilities, as well as plumbing product retailers and plumbing community.

AWWA appreciates USEPA's stakeholder dialog on regulations implementing the Reduction of Lead in Drinking Water Act, and strongly encourages the Agency to utilize the system of voluntary standards, product certification and labeling, and best practice application that has been put in place by the sector to-date to implement P.L. 111-380. In particular, AWWA recommends that USEPA:

1. Continue to rely on the relevant NSF International's voluntary consensus standards as USEPA and the water sector have done to implement lead-free implementation for decades. In crafting its regulation, USEPA should recognize the NSF standards and voluntary compliance system that the water sector organized to support timely implementation of 42 USC § 300g–6.
2. Recognize NSF 372, NSF 61-G, and with incorporation of Annex G into the primary standard, NSF 61 as demonstrating compliance with the Safe Drinking Water Act

[1] 42 USC 300g-6 as amended by "Reduction of Lead in Drinking Water Act" (P.L. 111-380) as clarified by the "Community Fire Safety Act of 2013" (P.L. 113–64).

(SDWA) definition of lead-free.[2] These standards are currently in use by the entire water sector and deviation from these standards would hinder rather than facilitate implementation of 42 USC § 300g–6.

NSF standards were an essential element of implementing the previous federal lead-free standard as well as more stringent, state-specific reductions in allowed levels of lead prior to P.L. 111-380. The NSF standards are ANSI certified, providing international traceability. Utilization of NSF standards are consistent with USEPA's responsibilities under the National Technology Transfer and Advancement Act to draw upon voluntary consensus standards.

3. Require that potable water pipes, fittings and fixtures which must comply with 42 USC § 300g–6 bear an indelible mark or label, and that product packaging bear labels indicating that the item is certified to meet the SDWA lead-free content requirement. USEPA has recently updated its summary of current lead-free marks and labels reflecting compliance with the SDWA definition of lead-free.[3] The USEPA guide appropriately describes marks and labels that reflect compliance with NSF 372 and NSF 61 Annex-G but will need to be updated in the future to reflect NSF 61 as a stand-alone standard.

   There are some products that are forged and/or small in size where "NL" is the most readily available and consistently applied mark to indicate a product is lead-free. Such a mark would be supplemented by product labeling, tags, and other mechanisms to ensure awareness of lead-free content at the time of installation.

   It is not necessary to prescribe additional product labeling language for lead free-compliance beyond that described in the above-referenced NSF standards. Federal regulation should not require additional labels or marks, specify label or mark size, or specify label or mark placement beyond adherence to NSF standards. Similarly, requirements for permanent labels or marks on product surfaces should not interfere with product use or aesthetic objectives (e.g., above-the-countertop surface of a faucet). Lastly, some products do not present a reasonable opportunity for markings and labels on packaging may be sufficient.

4. Require potable water pipes, fittings, and fixtures to comply with 42 USC § 300g–6 but not require compliance of individual product components. The revised definition of lead-free in P.L. 111-380 clearly recognizes that some potable water

[2] Incorporation of Annex G into body of standard took effect with 2014 edition of NSF standards and would apply to subsequently tested products as they are certified or when certification is renewed.
[3] 2015, USEPA, *How to Identify Lead Free Certification Marks for Drinking Water System & Plumbing Products*, http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100LVYK.txt .

system plumbing products will contain individual components that may not individually be less than 0.25% lead.[4]

5. Not impose a requirement for labeling products as "not for potable use" either on product or packaging.

   Such an additional labeling requirement is not viable on an "across-the-board" basis; on a more limited basis for pipes, fittings, and fixtures with a similar form and function as products used in potable water applications but used in non-potable water applications; or on explicitly exempted products. The implementation of 42 USC § 300g–6 prior to P.L. 111-380 was a successful model and did not include such non-potable labeling. There is no legislative language or history to suggest that imposing such a labeling standard was intended in the most recent revisions to SDWA, nor is it clear that such a requirement is authorized by the Act.

6. Rely on third-party certification embedded in the above NSF standards. Third-party certification is a valuable element in assuring that the lead content in products supplied by manufacturers to the wholesale and retail distribution network for plumbing products meets SDWA requirements. NSF certification procedures reflect an appropriate level of scrutiny for demonstrating compliance with 42 USC § 300g–6.

   As currently implemented, the NSF processes assure third-party certification without additional federal requirements or guidance that re-open the standard of care either by manufacturers or certifiers. By utilizing the NSF standards framework, USEPA is also assured that there are multiple vendors to fill this certification role.

7. USEPA's Frequently Asked Questions (FAQs) describes the necessary and appropriate continued use in the course of repairs and maintenance activities for pipes, fittings and fixtures that are not compliant with the latest definition of lead-free. The capacity to make repairs and continue to use products that remain in working order is important to managing the costs of implementation while being true to the intent of P.L. 111-380.[5]

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[4] "The weighted average lead content of a pipe, pipe fitting, plumbing fitting, or fixture shall be calculated by using the following formula: For each wetted component, the percentage of lead in the component shall be multiplied by the ratio of the wetted surface area of that component to the total wetted surface area of the entire product to arrive at the weighted percentage of lead of the component. The weighted percentage of lead of each wetted component shall be added together, and the sum of these weighted percentages shall constitute the weighted average lead content of the product." [emphasis added] (42 USC § 300g–6 (d)(2))

[5] "A pipe fitting or fixture that was installed in a public water system or a facility providing water for human consumption prior to the effective date of the 2011 Act does not need to meet the new definition of lead free regardless of whether it is repaired. The repaired pipe, fitting or fixture is not being "used" in the repair or installation, or "introduced into commerce" and therefore, the

In the past USEPA regulations have not constrained improvements to the NSF lead-free standards. Regulations subsequent to P.L. 111-380 should not foreclose either the future modification of these standards through the consensus standards process or prevent the recognition of comparable third party ANSI accredited standards in the future.

There is a sound nationwide product labeling program built on NSF standards. AWWA would be glad to work with USEPA to improve the current system through support for additional training for the professional user community. USEPA could also improve on the current approach through collaboration with the plumbing product retailers to improve education about lead-free materials at the point of purchase for retail customers, and education of sister agencies such as those with oversight of imported products.

If you have any questions regarding the attached comments please contact Steve Via at (202) 326-6130.

Best regards,

[redacted]

Thomas W. Curtis
Deputy Executive Director

cc: Lisa Christ

About the American Water Works Association
AWWA is an international, nonprofit, scientific and educational society dedicated to providing total water solutions assuring the effective management of water. Founded in 1881, the Association is the largest organization of water supply professionals in the world. Our membership includes over 3,900 utilities that supply roughly 80 percent of the nation's drinking water and treat almost half of the nation's wastewater. Our nearly 50,000 total members represent the full spectrum of the water community: public water and wastewater systems, environmental advocates, scientists, academicians, and others who hold a genuine interest in water, our most important resource. AWWA unites the diverse water community to advance public health, safety, the economy, and the environment.

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requirements of Section 1417 are not triggered as a result of the repair. … The temporary removal of pipes, fittings, or fixtures for repairs and reinstallation to their original location would not trigger the requirements of Section 1417 because the pipes, fittings or fixtures are not being installed or "used in" repair. (See FAQ # 29). Similarly, the temporary removal of pipes, fittings or fixtures for storage or calibration and reinstallation to their original location would not trigger the requirements of Section 1417. [emphasis added] (USEPA, *Summary of the Reduction of Lead in Drinking Water Act and Frequently Asked Questions*, 12/19/2013, http://water.epa.gov/drink/info/lead/upload/epa815s13003.pdf)

Badger Meter

4545 W Brown Deer Road
PO Box 245036
Milwaukee, Wisconsin 53224-9536
414-355-0400 | 800-876-3837

April 29, 2015

Mr. Brian D'Amico
Office of Ground Water and Drinking Water
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington DC 20460

RE: **Follow up Comments from the April 14, 2015 EPA Stakeholders Meeting**

Badger Meter would like to provide input, regarding topics covered during the April 14, 2015 EPA webinar on SDWA regulations.

Mandatory Third-Party Certifications:

Slide 57 from the webinar presentation indicates PMI support for mandatory third-party certification to a lead-content standard such as NSF-372. Badger Meter recognizes the value of NSF-372 (or NSF-61, in that it also establishes controls on lead content), and has chosen to have our assemblies certified to NSF/ANSI Standards 61 and/or 372. Past precedent under the SDWA has been to call for compliance with such standards (in some specific instances), but not to call for mandatory third-party certification. To now require mandatory, rather than voluntary, third-part certification under such standards would be a significant change, one that Badger Meter opposes.

Badger Meter's customers for waterworks products are water utilities, not consumers/homeowners. This customer base has established a market need for manufacturers to obtain third-party NSF-61 (or NSF-372) listings for water meters and metering assemblies, and we have voluntarily done so. However, for very simple ancillary products with only a few wetted materials of construction (particularly materials such as 316 stainless steel that are -- almost by definition – lead-free), there has not been a similar market need for anything beyond self-certification of this lead-free status by the manufacturers.

Potential Extension of Lead-Free Provisions down to the Service/Repair Part Level

Slide 33 of the presentation shows that California DTSC is enforcing AB 1953 lead content compliance requirements down to the service part level. This appears to be contrary to the intent of the area-weighted approach used in both AB 1953 and in the SDWA, where such analysis is applied at the level of the finished, complete product. It also may explain their findings of only 50% compliance rate. The area-weighted maximum lead content approach used in the SDWA was driven by the recognition that some products rely on lead-bearing materials (such as brasses or bronzes) for the proper fabrication or operation of individual components within a larger assembly. As long as these

components only represent a small fraction of the total wetted area in the fully-assembled product, the resultant area-weighted lead content for the entire assembly is obviously within safe limits.

DTSC perspective or scope may be limited to drinking water faucets and small fitting/fixtures sold through the consumer market, for which there are only a limited number of service parts for any given product. But in other potable water industry segments or markets, including such products as water meters or meter assemblies, there may be dozens of individual service parts for an individual product. To follow this DTSC approach across all types of products may well result in the elimination of repair opportunities for many products that, as complete assemblies, fully-comply with the SDWA.

Badger Meter asks that the EPA provide clear guidance regarding service/repair parts, so that such parts (even those that individually contain more area-weighted lead than 0.25%), are not to be regulated independently of the final/complete assemblies into which they are fitted.

As an extension to the two points discussed above, Badger Meter certainly would oppose the imposition of third-party certification requirements down to the level of service/repair parts. Even if such service parts could stand alone as being lead-free (not possible at present in some cases, as recognized by the area-weighted lead content approach of the SDWA), certification for finished product might then need to be supplemented by additional certifications for 10 to 20 (or more) service parts for some specific finished products. The expense involved in maintaining dozens of certifications, rather than a single certification at the finished, complete product would be immense. This would not only affect the manufacturer but also the utility customer, as service part pricing would increase dramatically and/or service part availability would be curtailed.

Labelling or Mandatory Markings

Again, Badger Meter recognizes the value of voluntary, third-party certification and the market-place advantages afforded to products that bear markings from such certification. These third-party certification agencies already have their own marking requirements. Such markings might be on packaging, on the product itself, or it might be required on both. This seems to be a suitable approach that is already being followed and to then add Federal marking mandates seems to be excessive. As reference, note that Badger Meter employs the “NSF-61” marking on various meter assemblies that have been certified through NSF International. For other products that comply with the lead-free provisions of the SDWA, but are not third-party certified, our customers (again, who are water utilities, rather than the general public) can find such information in our product literature.

- Mandatory marking on the product itself is not always practical given limited ‘real estate’ (particularly if there are already mandatory markings driven by un-related standards and/or certifications) and the potential costs to add such markings.

- In an extension of our concerns regarding extension of lead-free requirements down to the service/repair part level, calling for mandatory markings to be extended to the level of service parts is not practical nor is it always possible. Many components, for instance gaskets, cannot be directly marked (constraints of real estate, readability, functionality, etc).

- To require marks or labelling on exempted products -- either those specifically mentioned in the SDWA, or those that are not intended for drinking water systems , and are so-marketed -- goes beyond the scope of the SDWA and would be a regulatory over-reach.

Manufacturers and water utilities alike want to do their part to provide a healthy environment. We believe that a simple approach directed to new product assemblies based on current practices has already resulted in a reduction in lead. Requiring mandatory third-party certification, reaching beyond current SDWA provisions in order to regulate service parts independent of the finished product, or requiring markings beyond those used in voluntary third-parity certifications, would create added confusion and financial burdens to manufacturers, utilities and the end customer.

Sincerely,

BADGER METER, INC.

Jan Boyer
Marketing Manager

cc: Bill Bergum, Vice President – General Counsel and Secretary
George De Jarlais, Principle Engineer - Mechanical

Damico, Brian

From: Jack Fink [redacted]
Sent: Tuesday, April 14, 2015 3:20 PM
To: LeadFreeAct
Subject: lead-free Law

Categories: Yellow Category

I was at the seminar and could not press *1 and get questions answered. Please answer the following:

1.A lot of were very upset with the act as were owners because they felt : Why do faucets, etc when much of the pipe in water systems is 100 years old and a lot of it is leaded

2.Lead alternatives.: Several valve companies are using arsenic and state that it is acceptable as long as it is below a certain threshold?

Thanks you.

Jack Fink
Columbia Pipe & Supply Co.
[redacted]

COMMENTS OF D.C. ENVIRONMENTAL NETWORK, EARTHJUSTICE, FOOD & WATER WATCH, JERSEY CITY PARENTS FOR PROGRESS, PARENTS FOR NONTOXIC ALTERNATIVES, AND NATURAL RESOURCES DEFENSE COUNCIL

June 21, 2013

TO: U.S. Environmental Protection Agency, Office of Water and Ms. Lameka Smith, leadfreeact@epa.gov; smith.lameka@epa.gov

RE: Comments on Reduction of Lead in Drinking Water Draft Frequently Asked Questions (EPA 815-P-13-xxx), http://water.epa.gov/drink/info/lead/index.cfm

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) recently published a document entitled Draft Reduction of Lead in Drinking Water Act: Frequently Asked Questions ("FAQ document"), which implements the Reduction of Lead in Drinking Water Act ("RDLWA" or "the Act"), as amended in January 2011. This document unlawfully and arbitrarily interprets the law in ways that flout its plain language and its purpose. EPA must not issue this document in its current form. Instead, EPA must implement the Act by making clear that no lead-bearing components, including water meters, faucets, and other fixtures, can be used in the repair of any water supply or plumbing. Nor can parts like lead-bearing meters be repaired and reused. They must be replaced with lead free components. EPA also must recognize that the Act prohibits the introduction into commerce of lead-bearing components unless they will be "used exclusively for nonpotable services."

Furthermore, because EPA's document substantially changes the law, it is a legislative rulemaking and needs to go through the formal notice and comment rulemaking process. Instead of properly publishing the document in the Federal Register, however, EPA has merely posted the document on its web site with a short period for comment. As a result, many affected members of the public are unaware that EPA is taking the action proposed in the FAQ document. EPA should extend the deadline for public comment and perform outreach to local communities, including in the city of Washington, D.C. which has a longstanding problem with lead in the drinking water supply.

Finally, EPA has made a commitment to environmental justice. To fulfill that promise, EPA must ensure that the people most affected by EPA's action, including communities of color and lower income communities, will have a meaningful opportunity to consider and comment on EPA's action.

If EPA considers the public health impacts and community input, it should recognize that the exceptions its FAQ document creates are unlawful and inconsistent with the Act's text and purpose for all of the reasons discussed below, and for the reasons provided by the Comments submitted separately by Peter Sinsheimer and Marc Edwards (which the undersigned commenters hereby adopt and incorporate by reference).

I. Background on Lead

Lead is a dangerous neurotoxin that persists in the environment and bioaccumulates when taken into the human body. Scientific consensus shows that there is no safe level of lead exposure.[1] EPA and the Center for Disease Control have recognized this.[2]

In children, lead exposure is known to cause "[p]ermanent damage to the brain and nervous system, leading to behavior and learning problems, lower IQ, and hearing problems," slowed growth, anemia, and, "[i]n rare cases . . . seizures, coma and even death."[3] Lead is especially dangerous for children because it acts on their developing brains and nerves.[4] Lead exposure has been linked to neurological and behavioral problems, including attention-deficit/hyperactivity disorder, criminal behavior, and a need for special education.[5] There is substantial evidence that lead exposure negatively impacts children's IQ and academic performance.[6] For adults, lead exposure can cause nervous system effects, cardiovascular effects, increased blood pressure, decreased kidney function, and reproductive problems for adults of

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[1] *See* EPA, Basic Information about Lead in Drinking Water, last updated Mar. 6, 2012, http://water.epa.gov/drink/contaminants/basicinformation/lead.cfm ("[T]he best available science . . . shows there is no safe level of exposure to lead.").

[2] *See, e.g.*, CDC, What do Parents Need to Know to Protect Their Children (2012), *available at* http://www.cdc.gov/nceh/lead/ACCLPP/blood_lead_levels.htm (""The most important step parents, doctors, and others can take is to **prevent lead exposure before it occurs**."); CDC, Lead in Drinking Water and Human Blood Lead Levels in the United States (2012), *available at* http://www.cdc.gov/mmwr/preview/mmwrhtml/su6104a1.htm?s_cid=su6104a1_w ("Because lead accumulates in the body, all sources of lead should be controlled or eliminated to prevent childhood lead poisoning.").

[3] EPA, Learn About Lead, last updated Apr. 1, 2013, http://www2.epa.gov/lead/learn-about-lead.

[4] National Library of Medicine, MedlinePlus: Lead poisoning, last updated Feb. 1, 2013, http://www.nlm.nih.gov/medlineplus/ency/article/002473.htm

[5] CDC, CDC's Healthy Homes/Lead Poisoning Prevention Program, 2 (2012), *available at* http://www.cdc.gov/nceh/information/program_factsheets/lead_program_overview.pdf

[6] CDC, Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention, ix (2012), available at http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf.

both sexes.[7] Further, lead can accumulate for decades in a person's bones.[8] Certain circumstances—including pregnancy, breaking a bone, and old age—cause accumulated lead to be released back into the bloodstream and the organs where it can cause damage years after initial exposure.[9]

Children in the United States continue to show high levels of lead in their blood.[10] "Childhood blood lead levels in the United States differ across groups in the population, such as those defined by socioeconomic status and race/ethnicity."[11] Blood-lead levels tend to be higher for children living in older housing, and children who suffer nutritional deficiencies.[12] There are significant differences among racial and ethnic groups as well: "About 22% of African American children and 13% of Mexican American children living in pre-1946 housing are lead poisoned, compared with 6 % of white children living in comparable types of housing."[13] The National Black Environmental Justice Network notes that "Black children are five times more likely than white children to have lead poisoning[, and that] 1 in 7 black children living in older housing has elevated blood lead levels."[14] The CDC has noted that, based on data from the 1999-2002 and 2007-2010 National Health and Nutrition Examination Survey, "disparities in the [geometric mean] BLL by factors such as race/ethnicity and income level, which have been important historically, persist."[15]

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[7] EPA, Learn About Lead, last updated Apr. 1, 2013, http://www2.epa.gov/lead/learn-about-lead. *See also* California DTSC, Requirements for Low Lead Plumbing Products in California, (2011), *available at* http://www.dtsc.ca.gov/PollutionPrevention/upload/Lead-in-Plumbing-Fact-Sheet.pdf ("For adults, high levels of exposure to lead in drinking water can result in kidney problems, high blood pressure, nerve disorders, fertility problems, muscle and joint pain, irritability, memory and concentration problems.").

[8] ATSDR, Toxicological Profile for Lead, 7–8 (2007), *available at* http://www.atsdr.cdc.gov/toxprofiles/tp13.pdf

[9] ATSDR, Toxicological Profile for Lead, 7–8 (2007), *available at* http://www.atsdr.cdc.gov/toxprofiles/tp13.pdf.

[10] *See, e.g.*, CDC, Blood Lead Levels in Children Aged 1–5 Years — United States, 1999–2010 (Apr. 5, 2013), *available at* http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a3.htm?s_cid=mm6213a3_e ("An estimated 535,000 U.S. children aged 1–5 years had BLLs ≥5 µg/dL.").

[11] EPA, America's Children and the Environment, 119 (3d ed., 2013), *available at* http://www.epa.gov/opeedweb/children/publications/ACE3_2013.pdf. *See also, e.g.*, America's Children and the Environment, chart on page 125.

[12] EPA, America's Children and the Environment, at 119.

[13] NBEJN, Lead Facts in Black and White and Green, 2 (2005), *available at* http://www.nbejn.org/factsheets/LeadNBEJN-05new.pdf.

[14] NBEJN, Lead Facts in Black and White and Green, 2 (2005), *available at* http://www.nbejn.org/factsheets/LeadNBEJN-05new.pdf.

[15] CDC, Blood Lead Levels in Children Aged 1–5 Years — United States, 1999–2010 (Apr. 5, 2013), *available at* http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a3.htm.

Additionally, because lead is absorbed into children's bones and accumulates, disparate exposure from others sources compound lead's dangers to children in certain, vulnerable communities.[16] For example, "[c]hildren living in poverty and Black non-Hispanic children tend to have higher blood lead levels and higher levels of lead-contaminated dust in the home than do other children," making them vulnerable to additional lead exposure coming from their water.[17] Differences in mean BLLs can be traced to differences in housing quality, which can affect water supplies, environmental conditions, nutrition, and other factors that often result in the existence of notable racial and income disparities in BLLs.[18] Nutrition can play an important role in affecting the amount of lead that passes into the bloodstream after exposure.[19] Maternal nutrition can also affect the lead exposure of children, both during and after pregnancy.[20]

In recent years, EPA has recognized that current science shows there is no safe level of lead exposure and harm can occur at blood-lead levels well below 10 μg/dL.[21] As EPA has found, lead creates "a broad array of deleterious effects on multiple organ systems via widely diverse mechanisms of action," including "effects on heme biosynthesis and related functions; neurological development and function; reproduction and physical development; kidney function; cardiovascular function; and immune function."[22]

The CDC has recently also recognized that even very low blood lead levels (BLLs) can cause significant harm to children.[23] It has abandoned its prior conclusion that a blood-lead level below 10 μg/dL is safe. At blood levels less than 10 μg/dL, children are reported to suffer irreversible "cardiovascular, immunological, and endocrine effects," IQ deficits, attention deficit disorders and decreased academic performance.[24] The CDC has created a new reference value

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[16] *See, e.g.*, EPA, Lead in the Air: Health, last updated Mar. 13, 2012, http://www.epa.gov/oaqps001/lead/health.html ("Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones.").

[17] EPA, America's Children and the Environment, at 119.

[18] CDC, Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention, x (2012), available at http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf..

[19] ATSDR, Toxicological Profile for Lead, at 14.

[20] *See* EPA, Learn about Lead, last updated Apr. 1, 2013, http://www2.epa.gov/lead/learn-about-lead ("During pregnancy, lead is released from bones as maternal calcium is used to help form the bones of the fetus. This is particularly true if a woman does not have enough dietary calcium. . . . Lead can also be transmitted through breast milk.").

[21] *See, e.g.*, National Ambient Air Quality Standards for Lead, 73 Fed. Reg. 66,964, 66,972 (Nov. 12, 2008).

[22] *Id.* at 66,975.

[23] CDC, Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention, ix (2012), available at http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf.

[24] CDC, Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention, ix (2012), available at http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf.

requiring action, 5 µg/dL. The CDC found that "[t]here are approximately 450,000 U.S. children with BLLs above [the CDC's suggested reference value of 5 µg/dL] that should trigger lead education, environmental investigations, and additional medical monitoring."[25]

Recent research has led California EPA to change the blood level of concern that its environmental health programs, including its toxic hot spots air program, use as a benchmark.[26] The new California soil standard considers problematic any level of lead exposure that could increase a child's BLL by 1.0 µg/dL, irrespective of background exposures.[27] To address the problem of lead in drinking water supplies, California has also significantly lowered the permissible lead content of plumbing and plumbing fixtures.[28] Congress modeled the RLDWA after California's new law.

For many years, drinking water has been, and continues in some areas to be, a significant source of lead exposure.[29] "Adults absorb 35%-50% of the lead they drink, and the absorption rate for children may be greater than 50%."[30] The Children's Health Protection Advisory Committee has stated that "it has been estimated that 10–20% of the total lead exposure in children can be attributed to a waterborne route, through the consumption of contaminated water."[31] A recent CDC study "found that children living in houses with lead pipes were three times as likely to have elevated blood lead as children in houses without lead pipes."[32] "Exposure

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[25] *Id.* at x.

[26] California OEHHA, Revised California Human Health Screening Level for Lead (Review Draft), 1 (2009), *available at* http://oehha.ca.gov/risk/pdf/LeadCHHSL51809.pdf; Cal. EPA, OEHHA, Final Report, Development of Health Criteria for School Site Risk Assessment Pursuant to Health and Safety Code Section 901(g): Child-Specific Benchmark Change in Blood Lead Concentration for School Site Risk Assessment (2007), http://oehha.ca.gov/public_info/public/kids/pdf/PbHGV041307.pdf.

[27] California OEHHA, Revised California Human Health Screening Level for Lead (Review Draft), 2 (2009), *available at* http://oehha.ca.gov/risk/pdf/LeadCHHSL51809.pdf.

[28] California TSC, Lead in Plumbing Legislation, last visited June 17, 2013, http://www.dtsc.ca.gov/PollutionPrevention/LeadInPlumbing_Legislation.cfm.

[29] *See, e.g.*, WHO, Childhood Lead Poisoning, 44 (2010) ("Lead plumbing . . . has contaminated drinking-water for centuries, and lead in water can contribute to elevated blood lead concentrations in children"); New York City, New York City Plan to Eliminate Childhood Lead Poisoning, 21 (2005) (identifying the protection of "infants and children from exposure to lead in drinking water" as a key strategy to combat childhood lead poisoning).

[30] William L. Roper, et al., Preventing Lead Poisoning in Young Children, ch. 3 (1991), http://www.cdc.gov/nceh/lead/publications/books/plpyc/contents.htm.

[31] Letter from CHPAC to EPA, at 8 (Feb. 14, 2013), *available at* http://yosemite.epa.gov/ochp/ochpweb.nsf/content/lead_letter_2013.htm/$File/lead_letter_2013.pdf.

[32] *See* David Brown, *Study of D.C. water sharpens understanding of lead threat*, Wash. Post, Dec. 11, 2010, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2010/12/11/AR2010121102871.html?sid=ST2010122005141.

to lead via drinking water may be particularly high among very young children who consume baby formula prepared with drinking water that is contaminated by leaching lead pipes."[33]

The most significant source of lead in drinking water is from plumbing, especially in older homes and in areas where water undergoes treatments that make it more corrosive.[34] Thus lead in drinking water is a longstanding problem, particularly in urban areas with aging housing stock, containing older pipes, and in cities with old drinking water supplies. "Plumbing that contains lead may be found in public drinking water systems, and in houses, apartment buildings, and public buildings that are more than 20 years old," and even newer systems may contain many components with up to 8 percent lead.[35] Water meters, which utilities use ubiquitously to measure their customers' water usage, often contain especially large amounts of lead.[36] Compounding these problems, "[a]ll water is corrosive to metal plumbing materials to some degree."[37]

In Washington, D.C. for instance, approximately 42,000 children may have been exposed to dangerous levels between 2001 and 2004, during which time "[t]he lead concentrations in the city's water were sometimes hundreds of times higher in individual homes than the amount the federal government consider[ed] a level of concern."[38] The CDC recently concluded that the water in almost 15,000 D.C. homes may still be contaminated with dangerous levels of lead.[39]

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[33] EPA, America's Children and the Environment, 118 (3d ed., 2013), *available at* http://www.epa.gov/opeedweb/children/publications/ACE3_2013.pdf.

[34] EPA, Lead in Drinking Water, last updated May 22, 2013, http://water.epa.gov/drink/info/lead/index.cfm; EPA, Consumer Factsheet on Lead in Drinking Water, last updated Mar. 6, 2012, http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/fs_consumer.cfm.

[35] ATSDR, Toxicological Profile for Lead, *supra* note X, at 5; EPA, Lead in Drinking Water.

[36] *See, e.g.*, David Nakamura, *WASA Studying Meters for Lead*, Wash. Post, May 24, 2004, *available at* http://www.washingtonpost.com/wp-dyn/articles/A50459-2004May23.html ("the new meters . . . contain about 5 to 7 percent lead"); Frank Clifford, *Maker Will Phase Out Water Meters With Lead*, L.A. Times, Dec. 9, 1998, *available at* http://articles.latimes.com/1998/dec/09/local/me-52249 ("Typically, water meters are left in place for 12 years or longer ."); *See also* Simoni Triantafyllidou and Marc Edwards, *Lead (Pb) in Tap Water and in Blood: Implications for Lead Exposure in the United State*, 42 Critical Reviews in Environmental Science and Technology 1297, Table 1 (2012) (assuming that typical homes have one brass water meter weighing about 5 lbs and containing up to 8% lead, or more than 8% lead if installed prior to 1986).

[37] EPA, Consumer Factsheet on Lead in Drinking Water, last updated Mar. 6, 2012, http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/fs_consumer.cfm.

[38] Carol D. Leonnig, *High Lead Levels Found in D.C. Kids*, Wash. Post, Jan. 27, 2009, *available at* http://articles.washingtonpost.com/2009-01-27/news/36849769_1_blood-lead-harmful-levels-water-crisis.

[39] Ashley Halsey III & Mike DeBonis, *Water in thousands of D.C. homes might still be contaminated by lead, CDC says*, Wash. Post, Dec. 2, 2010, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2010/12/01/AR2010120107286.html.

Attempts to repair the lead problem in those homes by only partially replacing the lead pipes, may have actually made the problem worse.[40] EPA's 2010 analysis showed that in D.C. homes with a lead service line, 26.5% percent of children had blood-lead levels of 5.0 µg/dL or higher and 6% had BLL of 10.0 µg/dL or higher.[41]

The District of Columbia is not alone. During the last decade, studies in numerous cities have revealed high levels of lead in school drinking water, including: Seattle, WA;[42] Durham, NC;[43] Philadelphia, PA;[44] Syracuse, NY;[45] Baltimore, MD;[46] Portland, OR;[47] and San Francisco, CA.[48]

II. Background on the Reduction of Lead in Drinking Water Act of 2011

On Dec. 16, 1974, Congress enacted the Safe Drinking Water Act (SDWA), Pub. L. No. 93-523, 88 Stat. 1661 (1974), "to assure that water supply systems serving the public meet

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[40] *Id.*; *see also* Brown, et al., Association between children's blood lead levels, lead service lines, and water disinfection, Washington, DC, 1998–2006, Environ. Res. (2010), doi:10.1016/j.envres.2010.10.003.

[41] Letter from Mary Jean Brown, Chief, Healthy Homes and Lead Poisoning Prevention Branch, CDC to Lead Poisoning Prevention Program Managers, Important update: Washington, D.C. Blood Lead Level Tests (May 20, 2010), http://www.cdc.gov/nceh/lead/blood_levels.htm. In D.C. homes without a lead service line (but where there was still potential lead exposure inside the home's plumbing), 13.4% had blood-lead levels of 5.0 µg/dL or higher and 2% had BLL of 10.0 µg/dL or higher

[42] Sanjay Bhatt, Drinking Water to be Tested at All Seattle Schools, Seattle Times, Dec. 18, 2003, at B1.

[43] Michael Petrocelli, School's Drinking Fountains Shut Down: 'Actionable' Lead Amounts Turn up at Y.E. Smith Magnet, Herald-Sun, Aug. 4, 2004, at C1; see also Catherine Clabby, Expert Faults EPA on Lead: Chemical Change Cited in Durham Water Tests, News & Observer, June 30, 2006, http://www.newsobserver.com/politics/story/456206.html.

[44] Pennsylvania: Philly Schools Find Unsafe Lead Levels in 20 Percent of Water Outlets, eSchool News Online, Dec. 1, 2000, http://www.eschoolnews.com/news/showstory.cfm?ArticleID=2003.

[45] Maureen Nolan, Schools to Get Drinking Faucet Filters: The Project is Intended to Reduce the Levels of Lead in City Schools' Drinking Water, Post-Standard, Aug. 17, 2003, at B3; Government Accountability Office (GAO), Drinking Water: EPA Should Strengthen Ongoing Efforts to Ensure that Consumers are Protected from Lead Contamination 50-53 (2006). Syracuse found almost two dozen schools with high lead levels in the drinking water after performing tests at the request of the EPA, which was concerned about high blood-lead levels among the city's children. D'Vera Cohn, EPA Asks for States' Plans on Lead: Widening Water Problem Spurs Action, Wash. Post, ar. 28, 2004, at C01.

[46] Tanika White, Fountains with Lead Remained in Schools: Plan to Use Bottled Water Was Never Carried Out, Despite Contamination, Baltimore Sun, Feb. 7, 2003 , at 1B

[47] Michelle Cole, Schools Shut Off Drinking Fountains, Oregonian, Aug. 25, 2001, at A01.

[48] Nanette Asimov, Toxic Lead Found in Schools: Paint, Drinking Water Tested in S.F. District, San Francisco Chronicle, Nov. 14, 2000, at A21.

minimum national standards for protection of public health." [49] Twelve years later, Congress passed the Safe Drinking Water Act Amendments of 1986 (1986 Amendments), Pub. L. No. 99-339, 100 Stat. 642, which, among other changes, added 42 U.S.C. § 300g-6, the Act's prohibition on the use of lead pipes, solder and flux.

For decades, Section 300g-6 has prohibited the use of "any pipe, any pipe or plumbing fitting or fixture, any solder, or any flux," that is not lead free within the meaning of the statute, "in the installation or repair of . . . any public water system; or . . . any plumbing in a residential or nonresidential facility providing water for human consumption."[50] The purpose of § 300g-6 when added was "to eliminate the future use of lead in water supply distribution systems and to notify persons that may be at risk from lead in existing systems."[51]

Congress subsequently expanded section 300g-6 in the Safe Drinking Water Act Amendments of 1996 (1996 Amendments), Pub. L. No. 104-182, 110 Stat. 1613.[52] As explained in the House Report on these amendments:

> Section 151 [of the 1996 Amendments] revises section 1417 to expand the lead ban provisions to prohibit the use of any pipe, pipe or plumbing fitting or fixture, solder or flux in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption that is not lead free. In addition, the provision provides that two years after enactment, it shall be unlawful to sell (or otherwise introduce into commerce) pipes and pipe or plumbing fittings or fixtures that are not lead free, except for pipes that are used in manufacturing or industrial processing. The provision also bans persons in the business of selling plumbing supplies, except manufacturers, from selling solder or flux that is not lead free and requires any person selling solder or flux to label the product to indicate that it is illegal to use this solder or flux in the installation or repair of any plumbing providing water for human consumption.

As further explained: "The focus of [those] changes [was] to prevent the contamination of the drinking water supply by lead that has leached from pipes, faucets and other fixtures incidental to the delivery of potable water."[53]

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[49] H. R. Rep. 93-1185, at 1 (1974), *reprinted in* 1974 U.S.C.C.A.N. 6454.

[50] 42 U.S.C. § 300g-6. Pub. L. No. 99-339 applied to "[a]ny pipe, solder, or flux," but Pub. L. No. 104-182 expanded this to "any pipe, any pipe or plumbing fitting or fixture, any solder, or any flux."

[51] H. R. Conf. Rep. 99-575, at 38 (1986), *reprinted in* 1986 U.S.C.C.A.N. 1592, at 1602.

[52] *See also* H. R. Rep. 104-632, at 39 (1996), *reprinted in* 1996 U.S.C.C.A.N. at 1366, at 1402.

First EPA issued regulations to implement § 300g-6, at 40 C.F.R. § 141.43 in 1987. EPA, Water Pollution Control; National Primary Drinking Water Regulations, Final Rule, 52 Fed. Reg. 20,674 (June 2, 1987); *see also* EPA, National Primary Drinking Water Regulations for Lead and Copper, Final Rule, 65 Fed. Reg. 2003 (Jan. 12, 2000).

On Jan. 4, 2011, the Reduction of Lead in Drinking Water Act (the Act), Pub. L. No. 111-380, 124 Stat. 4131 (2011) (codified at 42 U.S.C. 300g-6), was enacted as the most recent, amendment to § 300g-6. The main effect of this amendment, effective Jan. 4, 2014, will be to change the SDWA's definition of lead free for pipes and pipe-fittings from "containing not more than 8.0 percent lead,"[54] to "not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures." The Act also adds certain exemptions from § 300g-6's restrictions.[55]

The RLDWA was enacted from bill S. 3874 in the 111th Congress, which passed unanimously in the Senate.[56] (Its sister bill in the House, H. R. 5289,[57] only differed substantively with respect to when the proposed changes would go into effect.[58] In the House, a short debate took place,[59] but the bill was ultimately passed by a vote of 226 to 109.[60]) There is no authoritative legislative history available on the RLDWA, but some statements from the debate are informative.

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[53] H. R. Rep. 104-632, at 39 (1996), *reprinted in* 1996 U.S.C.C.A.N. 1366, at 1402.

[54] *Compare* 1986 Amendments, Pub. L. No. 99-339 § 109, *with* the Act, Pub. L. No. 111-380 § 2(a)(2) (codified at 42 U.S.C. § 300g-6(d)). *See also* 1996 Amendments, Pub. L. No. 104-182 § 118 (codified at 42 U.S.C. 300g-6(e) (adding that either a voluntary standard for the leaching of lead must be adopted by Aug. 6, 2001, or else a default rule will go into effect stating that "no person may import, manufacture, process, or distribute in commerce a new plumbing fitting or fixture, intended by the manufacturer to dispense water for human ingestion, that contains more than 4 percent lead by dry weight.").

[55] *See* the Act, Pub. L. No. 111-380 § 2(a)(1), codified at 42 U.S.C. § 300g-6(a)(4).

[56] S. 3874, 124 Stat. 4131, 111th Cong. (as passed Jan. 4, 2011); *See* 156 Cong. Rec. S10,364 (daily ed. Dec. 16, 2010).

[57] *See* 156 Cong. Rec. H8,617, H8,617 (Dec. 17, 2010) (Rep. Doyle, presenting S.3874 to the House: "This is the Senate companion to Ms. Eshoo's bill, the Get the Lead Out Act."). The Get the Lead Out Act was the title of H. R. 5289, 111th Cong. (as introduced May 12, 2010).

[58] *Compare* S. 3874 § 2(b) ("The provisions of subsections (a)(4) and (d) of section 1417 of the Safe Drinking Water Act, as added by this section, apply beginning on the day that is 36 months after the date of the enactment of this Act."), *with* H. R. 5289 § 2(b) ("The provisions of subsections (a)(4) and (d) of section 1417 of the Safe Drinking Water Act, as added by this section, apply beginning on January 1, 2012.").

[59] 156 Cong. Rec. H8,617–19 (daily ed. Dec. 17, 2010).

[60] *See* 156 Cong. Rec. H8,769 (daily ed. Dec. 17, 2010).

Although debate in the House was minimal, Representative Doyle introduced the bill as one which would "update the national lead content standard to nearly eradicate lead in faucets and fixtures which currently contribute up to 20 percent of human lead exposure, according to the EPA."[61] He also stated that the Act was meant to respond to new science indicating "that much smaller amounts of lead exposure can have serious impacts on children and adults, including kidney disease, reduced IQ, hypertension, hearing loss, and brain damage."[62] Accordingly, the bill "mirror[ed] the [2006] California legislation and [] provide[d] for a consistent and effective national standard to ensure that no one [would] be exposed to a serious health threat which [could] easily be avoided."[63]

Two members of the House who spoke on the floor, Rep. Doyle and Rep. Stearns, both acknowledged that the bill would not affect lead in utility companies' service lines,[64] and also that, absent installation and repair, "[t]he bill doesn't require people to buy replacements. No one is forced to replace their faucets."[65] Rep. Doyle also explained that many utility companies supported the bill and were "constantly making efforts to get lead out of their lines."[66] "What we are trying to do," he explained, "is not to make that an exercise in futility by allowing the faucets to return the lead into the lines that they are working so hard to take out."[67] As further stated, no members of Congress "want to have lead in water."[68]

III. EPA's Interpretation of the Act in the FAQ Document Is Unlawful and Arbitrary.

The FAQ document unlawfully interprets and weakens the protection the Act was intended to provide, by allowing the re-use and re-introduction into commerce of lead-bearing components that violate the Act's lead free requirement. EPA must not finalize the document as is, and instead must interpret, apply, and enforce the Act's plain language as enacted by Congress.

EPA unlawfully interprets and weakens the prohibition on the use of lead-bearing components in § 300g-6. This provision states as follows:

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[61] 156 Cong. Rec. H8,617, H8,617 (daily ed. Dec. 17, 2010).
[62] *Id.*
[63] 156 Cong. Rec. at H8,617.
[64] *See id.* at H8,617–18.
[65] *Id.*
[66] *Id.* at H8,618.
[67] *Id.*
[68] *Id.*

> "No person may use any pipe, any pipe or plumbing fitting or fixture, any solder, or any flux, after June 19, 1986, in the installation or repair of –
>
> (i) any public water system; or
>
> (ii) any plumbing in a residential or nonresidential facility providing water for human consumption,
>
> that is not lead free (within the meaning of subsection (d) of this section."

42 U.S.C. § 300g-6(a)(1)(A). The only exception to this broad "prohibition" is for "leaded joints necessary for the repair of cast iron pipes." *Id.* § 300g-6(a)(1)(B).

As shown by the plain text, in § 300g-6, the terms "use" and "repair" are broad and have no exceptions. The term any means any, and "the word 'any' has an expansive meaning."[69] Congress could not have been clearer. The law does not require Congress to "repeat itself or use extraneous words before [courts] acknowledge its unambiguous intent."[70] Rather, Congress's juxtaposition of broad applicability language with a specific exemption makes clear that Congress intended the Act to cover all circumstances of use in installation or repair other than those expressly exempted.[71] Because EPA is attempting to add exceptions that do not exist in the statute, as discussed below, each of the proposed exceptions is unlawful and arbitrary.

A. Q&A number 12 and 14 flout the statute's broad language, and unlawfully narrow the range of products to which the Act applies.

Question 12 of the FAQ asks whether replacement parts, provided by manufacturers of faucets and fixtures for use in repairing those products, must meet the statutory definition of lead free. The answer required by the statute is an unequivocal yes.

But EPA states that the answer "depends." Only applying § 300g-6's prohibitions to certain types of parts, when the Act itself specifically addresses the fixtures themselves as within its regulatory ambit, would completely contradict both the language and purpose of the Act. The Reduction of Lead in Drinking Water Act strives to "update the national lead content standard to nearly eradicate lead in faucets and fixtures which currently contribute up to 20 percent of

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[69] *New York v. EPA*, 443 F.3d 880, 885-86 (D.C. Cir. 2006).
[70] *Friends of the Earth, Inc. v. EPA*, 446 F.3d 140 (D.C. Cir. 2006).
[71] *See, e.g., New Jersey v. EPA*, 517 F.3d 574, 582 (D.C. Cir. 2008) (Congress's use of broad requirement and specific exemptions made clear it did not intend to create other exemptions).

human lead exposure."[72] Explaining that utility companies were concurrently working on removing lead utility lines, Rep. Doyle stated that "[w]hat we are trying to do is not to make that an exercise in futility by allowing the faucets to return the lead into the lines that they are working so hard to take out."[73]

EPA must recognize that the statutory term plumbing fixture applies to a broad range of products and their component parts, including "showers, bathtubs, lavatory basins, toilets . . .[,] washing machines, garbage-disposal units, hot-water heaters, dishwashers, and drinking fountains."[74] All of these things are composed of various parts. If a sink or faucet can be distinguished from its component parts, then when Congress prohibits the use of "any . . . [plumbing] fixture . . . in the installation or repair of . . . (i) any public water system[,] or (ii) any plumbing in a residential or nonresidential facility providing water for human consumption," this language is mere surplusage. EPA's approach unlawfully and arbitrarily circumvents the statutory ban by allowing people to use a variety of leaded components to create fixtures that are themselves non-compliant. That Congress envisioned all component parts being considered is clearly evidenced by the part-by-part analysis prescribed in its definition of lead free.[75]

To the extent that this language may apply to parts that will not come into contact with the running water, EPA need not worry—Congress addressed specifically this problem in § 300g-6(d)(2), which specifies that only wetted parts of components shall be used in the calculation of lead content.[76] Thus, when EPA responds to question 12 by saying that "it depends" on whether the part is itself a pipe, pipe fitting, plumbing fitting or fixture, it is contradicting the Act's clear and intentional breadth. Any part that is used to repair or install a fixture must be lead free within the meaning of the Act.

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[72] 156 Cong. Rec. H8,617, H8,617 (daily ed. Dec. 17, 2010).
[73] 156 Cong. Rec. H8,617, H8,618 (daily ed. Dec. 17, 2010).
[74] Encyclopedia Britannica Online, *Plumbing*, http://www.britannica.com/EBchecked/topic/465074/plumbing, last visited June 19, 2013.
[75] *See* 42 U.S.C. § 300g-6(d)(2) (analyzing lead content by looking at "each wetted component", and *not* each wetted pipe, pipe fitting, plumbing fitting, or fixture).
[76] *See* 42 U.S.C. § 300g-6(d)(2) ("The weighted average lead content of a pipe, pipe fitting, plumbing fitting, or fixture shall be calculated by using the following formula: For each *wetted component*, the percentage of lead in the component shall *be multiplied by the ratio of the wetted surface area of that component to the total wetted surface area of the entire product* to arrive at the weighted percentage of lead of the component. The weighted percentage of lead of each *wetted component* shall be added together, and the sum of these weighted percentages shall constitute the weighted average lead content of the product." (emphasis added)).

Question 14 presents the same problem as question 12, by attempting to limit the types of parts that must be lead free when repairing a plumbing fixture. The only limit in the Act is whether or not the part is a wetted part.[77] *All* wetted parts of a fixture must be lead free.

B. Q&As number 15, 16, and 17 are contrary to the Act's prohibition on the "use" of any products "in the installation or repair of . . . any public water system, or . . . any plumbing in a residential or nonresidential facility providing water for human consumption."

EPA attempts to write exceptions into the statute in its answers to questions 15-17.

Question 15's second part and Question 16 pose the question of whether a repaired plumbing fixture – such as a faucet or water meter – needs to meet the new definition of lead free before it can be returned to service, or if only the newly added parts are bound by the requirements of the statute. EPA's answer is that only the parts used in the repair need to meet the definition of lead free.

In Question 15, EPA attempts to distinguish between a "repaired faucet" and "any parts used in the repair." The statute makes no such distinction. A repaired faucet is "any . . fixture," and thus falls within § 300g-6. It is also used in the repair of "any plumbing," like any other fixture or plumbing component. Therefore, it must satisfy the lead free requirement. EPA has given no reasonable justification for failing to apply the plain text of the statute.

Regarding Question 16: The same is true for a water meter. It is "any . . .fixture," and the scenario described falls into the category of the "repair" of "any public water system" and "any plumbing . . . providing water for human consumption." That is, when a water meter needs to be worked on, service technicians take it out of service for repair. When installing that water meter after removing it for service, they are using that meter in the "repair" of both a public water system *and* that particular facility's plumbing. (They are also using it in the "installation" of such water system and plumbing, although it better fits the meaning of repair). The Act explicitly prohibits the use of lead-bearing products in the "installation *or repair of*" these plumbing systems.[78] Thus, EPA may not authorize the use of a water meter that is not lead free, as this violates the Act.

EPA attempts to add language to the Act to distinguish parts that are being repaired: "Any part used in the repair of the meter that is a pipe, pipe fitting, plumbing fitting or fixture must meet the new definition of lead free, but the meter being repaired is not independently subject to the requirements in 1417(a) because it is not being used or installed *for the first time in that*

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[77] *E.g.*, Draft Reduction of Lead in Drinking Water Act: Frequently Asked Questions (PDF) at 8, question 15, first question and answer.

[78] 42 U.S.C. § 300g-6 (emphasis added).

location."[79] The emphasized language adds an exception that is not in the Act—had Congress wanted to create such an exception, it would have. Instead, the Act plainly prohibits the "use any pipe, any pipe or plumbing fitting or fixture, any solder, or any flux, after June 19, 1986, in the installation or repair of . . . (i) any public water system[,] or (ii) any plumbing in a residential or nonresidential facility providing water for human consumption."[80] Whether or not a meter, or other fixture, was previously installed in a particular location has no bearing on this broad prohibition. The words "for the first time" are not part of the statute. No lead-bearing item may be put into any public water supply or plumbing system – regardless of the location where it originated – or this violates § 300g-6.

EPA's interpretation also contradicts § 300g-6's(a)(1)(A)'s text, as enacted in 1986, amended in 1996 and not changed in 2011. Although EPA rightly points out that, absent installation or repair, "[n]o one is forced to replace their faucets" under the Act,[81] where such activities occur, that is precisely what the Act requires. The RLDWA itself merely lowers the acceptable amount of lead under the provisions added to the SDWA in the 1986 Amendments, and sponsored by Senator Bradley.[82] As Senator Bradley explained in 1986: "My amendment does not ask anyone to rip up old plumbing systems. Rather, the amendment tries to arrest the problem before it progresses further by concentrating on new construction and repair of existing plumbing."[83]

The RLDWA was based on a recent California law,[84] which has virtually identical wording to §300g-6(a).[85] Like the RLDWA, the California law makes no exception for lead-bearing parts and fixtures to be replaced into service.[86] California's Department of Toxic Substances Control has read the statute accordingly, and does not permit lead-bearing replacements:

> Q. How will DTSC's testing and evaluation program apply to plumbing fittings or fixture repair and replacement parts?

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[79] Draft FAQ at 9 (emphasis added).
[80] 42 U.S.C. § 300g-6(a)(1)(A).
[81] 156 Cong. Rec. at H8,618.
[82] *See* 1986 Cong. Rec. S6,284, S6,288 (daily ed. May 21, 1986) ("Senator Bradley sponsored an amendment that would ban the use of lead pipes and solder for use in drinking water distribution systems. This is a very important amendment and I am pleased that we could include the Bradley amendment here in the Safe Drinking Water Act Amendments of 1986.").
[83] 1986 Cong. Rec. S6,284, S6,298 (daily ed. May 21, 1986) (emphasis added).
[84] 156 Cong. Rec. H8,617, H8,617 (daily ed. Dec. 17, 2010).
[85] *See* California Codes, Health and Safety Code, § 116875(a).
[86] *See id.*

> A. The new lead content requirements apply broadly to all pipes, pipe fittings or plumbing fittings, or fixtures intended to convey or dispense water for human consumption. (Health and Safety Code, § 116875, subdivisions (a) and (b).) The statute does not contain an explicit exemption for replacement parts from the new lead content requirements. Nor has DTSC found any supporting information in the legislation or related materials supporting the notion that the California Legislature intended to exempt such a broad category of materials as "replacement parts." To do so would mean that for years or even decades after the law's adoption, no meaningful reduction in lead exposure from drinking water would occur. Moreover, as plumbing fixtures sit on retail shelves available for purchase in California, there is no distinction between "new" and "replacement" parts. They are the same.[87]

Notably, although EPA contends that the FAQ document is clarifying some new language enacted in 2011, the key language on installation and repair has existed in some form since 1986, and the current language was enacted in 1986.[88] 'The RLDWA only acted to change the definition of lead free, and did not affect the SDWA's broad proscription on the use of lead-bearing products in the installation or repair of plumbing and water systems. EPA rightly explains that the changes in the RLDWA, absent installation or repair, do not require anyone to rip up their plumbing or go out and buy new faucets. However, the Act does require broken parts to be replaced with lead free products, and not merely repaired and returned to service. Returning lead-bearing products to service would keep lead in our water supply for decades, clearly contrary to the Act's plainly stated *raison d'etre*: "[t]o amend the Safe Drinking Water Act to reduce lead in drinking water."[89]

EPA cites as authority for its interpretation the comments of Representative Doyle, from the brief House debate that accompanied passage of the bill, that "[t]he bill doesn't require people to buy replacements. No one is forced to replace their faucets."[90] However, EPA mischaracterizes Rep. Doyle's language, and as a single legislator's statement such language carries little persuasive weight anyway in interpreting the Act. Rep. Doyle's recognition that the law "doesn't require people to buy replacements" recognizes that, absent installation or repair, no affirmative steps are required to replace lead-bearing components in water systems or plumbing. However, whenever any component is used in "installation or repair," then the law kicks in. Further, Rep. Doyle summed up his position in the debate by saying that he "would be more concerned with someone coming up to a town hall meeting to [him] and asking [him] why

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[87] *See* California DTSC, FAQs on California's Lead in Plumbing Law (2010), http://www.dtsc.ca.gov/PollutionPrevention/LeadinPlumbing_FactSheetsandFAQs.cfm.
[88] *See* Pub. L. No. 99-339 § 1417 (adding § 300g-6(a)(1)(A) to the SDWA).
[89] RLDWA, Pub. L. No. 111-380, at 1, 124 Stat. at 4131.
[90] 156 Cong. Rec. H8,617, H8,618 (daily ed. Dec. 17, 2010).

we haven't done everything we could to get lead out of drinking water."[91] A law that permits lead-bearing parts to be put back into service does nothing to get lead out of drinking water—it only takes lead off the shelves. EPA's interpretation thus contradicts both the plain meaning of the Act and Congress's intent.

Question 17 attempts to distinguish seasonal installation of a public water system from "installation . . . of . . . any public water system."[92] Not only does this, too, contradict the purpose of the Act, but it also contravenes the plain language of the statute which prohibits the use of lead-bearing parts in the installation of any public water system. Nothing in the statute suggests that a system's installation during a previous season should bear on the Act's broad prohibition.

As a further problem, a 2010 CDC study found that partial replacement of pipes did not reduce exposed children's blood-lead levels.[93] Thus, it is unclear whether partially replacing plumbing components – and putting faucets, water maters, or other components back into the system – would have the intended effect of protecting public health. EPA has failed to show how its interpretation, which would allow these activities, is consistent with the purpose of the Act to phase out the use of lead-bearing plumbing.

There is some evidence that the partial repair of lead-bearing products might even exacerbate leaching problems. A recent Science Advisory Board (SAB) review of partial lead service line replacement concluded that "[t]he weight of evidence indicates that [partial lead service line replacement] often causes tap water lead levels to increase significantly for a period of days to weeks, or even several months."[94] While unable to determine a definite cause, the SAB's prominent theories included chemical reactions between the old and new components of the plumbing system (galvanic corrosion), and cutting techniques used to remove the lead lines.[95]

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[91] 156 Cong. Rec. at H8,619.

[92] 42 U.S.C. § 300g-6(a)(1)(A).

[93] Mary Jean Brown *et al.*, CDC, Association between children's blood lead levels, lead service lines, and water disinfection, Washington, DC, 1998–2006, Environ. Res. (2010), http://www.washingtonpost.com/wp-srv/metro/documents/cdc_dc_water12012010.pdf.

[94] Letter from SAB to EPA re: SAB Evaluation of the Effectiveness of Partial Lead Service Line Replacements, at 1-2, *available at* http://yosemite.epa.gov/sab/sabproduct.nsf/02ad90b136fc21ef85256eba00436459/964CCDB94F4E6216852579190072606F/$File/EPA-SAB-11-015-unsigned.pdf. *See also* CDC, Lead in Drinking Water and Human Blood Lead Levels in the United States (Aug. 10, 2012), *available at* http://www.cdc.gov/mmwr/preview/mmwrhtml/su6104a1.htm?s_cid=su6104a1_w ("Partial lead service line replacement has been associated with short-term increases in lead levels in drinking water."); 156 Cong. Rec. at H8,617 (Rep. Stearns explaining his fear that "do-it-yourselfers . . . [might] cut their home piping, thereby releasing lead shavings into their home's pipes, and wind up with water streaming from their faucets with even more lead than had they just left the faucet alone.").

[95] *See id.*

EPA should consider these risks when allowing lead-bearing components to be repaired and then replaced into operation. Not only would allowing lead-bearing parts to return to service undermine the RLDWA and SDWA's goals of reducing lead in drinking water by phasing out lead-bearing components, evidence suggests that it may *increase* the amount of lead in the water supply.

In sum, EPA's suggestion that any lead-bearing parts can be removed as part of a repair and then returned to a water supply or plumbing system for human consumption would gut the purpose of the Act. The FAQ document could potentially allow the repair of an entire plumbing system in which all lead-bearing components are returned to the system – which is completely contrary to the Act's language and purpose of ensuring that when repairs take place, lead-bearing components are replaced with lead free components. That would lead to years of delay in achieving the lead free goals of the Act, and would fail to protect public health. Thus, in addition to being unlawful, EPA's FAQ document is also arbitrary and capricious.

C. Q&A number 18, 19, and 21 are also unlawful, arbitrary and capricious.

Questions 18, 19 and 21 all address the issue of whether a manufacturer may, by labeling a product so, determine that it will not be used for potable service, thereby fitting it into the exemption provided in § 300g-6(a)(4)(A). EPA incorrectly concludes that they may.

The exemption uses precise language to provide that "pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that *are* used *exclusively* for nonpotable 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*" may be excused from the lead free requirements in §300g-6(a)(1) and (3). Congress is exempting only pipes in use, in the present tense, for *exclusively* nonpotable services or services where "the water is not anticipated to be used for human consumption." The Merriam-Webster Dictionary defines anticipate as "to give advance thought, discussion, or treatment to."[96] This language does not permit companies to avoid Congress's mandate by posting boilerplate language that their product should only be used for nonpotable services. Rather, Congress's language requires advance consideration of the potential uses of a product, to ensure that any products that may be used for drinking water are lead free when put into commerce. For instance, regardless of what a company many print on the packaging of a shower nozzle or garden hose, it is easy to foresee that people may drink from it.[97] Allowing manufacturers to mark any plumbing fixture, pipe, etc.

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[96] *Anticipate Definition,* Merriam Webster Dictionary, http://www.merriam-webster.com/dictionary/anticipate (last visited June 20, 2013).

[97] EPA has pictures of children drinking hoses on its website, for instance at http://water.epa.gov/lawsregs/lawsguidance/cwa/economics/liquidassets/execsumm.cfm. Summer camps and sports teams sometimes fill coolers with garden hoses.

as not for potable service, and thereby introduce the item into commerce, unlawfully expands Congress's narrow exemption for products that are being used "exclusively for nonpotable services." The only products that are permitted to contain lead in excess of the Act's requirements are incompatible with use for potable service.

The SDWA clearly envisions that its requirements will be enforced.[98] EPA must ensure that the FAQ document contains appropriate, enforceable requirements. A suggestion of labeling is not enough to ensure that a violator could be held accountable.

Further, to the extent any labeling is required, EPA *must* require it to be done by permanent, physical marking on the products. A label should clearly state that the product contains lead in excess of levels permitted by the federal Reduction of Lead in Drinking Water Act, and that using it for drinking water applications may lead to irreparable brain damage, loss of IQ, and other serious conditions. Allowing anything other than permanent, on-product labels would make lead free and lead-bearing products indistinguishable once installed into service. This could lead to lead-bearing products being accidentally placed into potable service as parts get moved around during repairs. Further, this would make it substantially harder to phase lead products out of use because consumers and plumbers would not know what kind of plumbing products they possessed. Finally, lack of adequate labeling would nearly eliminate any possibility of enforcing the Act's requirements because consumers would have no way to know when someone had illegally installed a lead-bearing product in their home, and EPA would have no way of verifying compliance except by physically testing sample products for actual lead-content.

IV. Issuing an FAQ Document, Rather than A Rule, To Provide a New Interpretation of the Act After Prior Rulemaking Is Unlawful.

A. EPA's draft FAQ is an ultra vires rulemaking, without adequate public notice and comment under the APA or SDWA, and should have been published in the Federal Register.

EPA's proposed FAQ significantly alters the requirements of the Reduction of Lead in Drinking Water Act, without providing meaningful protection for affected communities.

EPA has previously promulgated regulations to implement § 300g-6, without interpreting this provision to create any exceptions from the clear statutory language. EPA's own prior regulatory actions, in 1987 and 2000 (cited above) show that the exceptions EPA is now

[98] *See* SDWA § 1449, 42 U.S.C. 300j-8 (allowing citizens suits); Draft FAQ at 5 (explaining that violators may be subject to citizen suits or EPA enforcement actions).

attempting to create through the FAQ document (as discussed in these comments) are unlawful.[99] The 2011 amendments did not amend the "use," or "installation or repair," language. Strengthening the definition of lead free does not give EPA authorization to issue a new statutory interpretation of the 1996 statutory text that changes it, without following the full required notice-and-comment rulemaking process and meeting all APA and SDWA requirements.

Because EPA's document attempts to change the law, the FAQ is a legislative rulemaking.[100] The document is not a policy statement.[101] Nor is the document merely interpretive—as explained in *American. Mining Co. v. Mine Safety & Health Admin.*, 995 F.2d 1106, (D.C. Cir. 1993), a rule is legislative when any of the following are true:

> (1) whether in the absence of the rule there would not be an adequate legislative basis for enforcement action or other agency action to confer benefits or ensure the performance of duties, (2) whether the agency has published the rule in the Code of Federal Regulations, (3) whether the agency has explicitly invoked its general legislative authority, or (4) whether the rule effectively amends a prior legislative rule.[102]

The first requirement is met because in the absence of this document, there would not be an adequate legislative basis for, *e.g.*, utility companies that install lead-bearing water meters back into service after repairs, to defend themselves from prosecution. EPA has attempted to create a legal right for these groups, and others, who it arbitrarily exempts from the law's requirements.

Furthermore, EPA's publication of the FAQ document was preceded by a public webinar in which it sought "to discuss and solicit input from States, manufacturers, drinking water systems, other interested groups and consumers on the implementation of the Reduction of Lead in Drinking Water Act of 2011."[103] EPA explained that:

> Some of the changes the Act makes to SDWA Section 1417 raise implementation challenges and issues that may warrant regulatory changes beyond codification of the statutory changes into the Code of Federal Regulations. EPA would make any needed regulatory changes as part of the Lead and Copper Rule long-term revisions (LCR-LTR). However, because the final LCR-LTR will be published

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[99] 40 CFR § 141.43.
[100] *See Natural Resources Defense Council v. EPA*, 643 F.3d 311, 320 (D.C. Cir. 2011).
[101] *See Natural Resources Defense Council v. EPA*, 643 F.3d 311, 321 (D.C. Cir. 2011).
[102] 995 F.2d 1106, 1112 (D.C. Cir. 1993).
[103] 77 Fed. Reg. 44,562/1 (July 30, 2012).

> after the effective date of the Act, EPA intends to provide information to assist plumbing manufacturers, States, water systems, plumbing retailers and other affected parties in implementing the provisions of the Act starting in 2014.[104]

"The webinar proceedings and the solicited input were used in formulating the" FAQ document.[105] Thus, EPA admits that the statements offered in this FAQ are meant to act as a de facto rule, until EPA takes further action.

In short, the FAQ document is an attempt at rulemaking, without meeting the statutory requirements of the Administrative Procedure Act (APA) or the Safe Drinking Water Act. Subsection 553(b) of the APA explicitly requires that "[g]eneral notice of proposed rule making shall be published in the Federal Register."[106] "It is well-established that an agency may not escape the notice and comment requirements . . . by labeling a major substantive legal addition to a rule a mere interpretation."[107]

Further, EPA also has failed to satisfy the public participation and comment requirements of the SDWA.[108] EPA's regulations implementing the Act emphasize the importance of public participation and involvement, and EPA has ignored these requirements here. Moreover, the regulations direct EPA to provide meaningful public notice through publication, far enough in advance to provide an opportunity for comment, and at least a 30-day comment period.[109] Yet, the regulation's reference to publication is plainly to publication in the Federal Register, which did not occur here.[110] The regulations require EPA to provide notice to the list described in § 25.4(b)(2), and it is unclear whether EPA fulfilled that requirement here or not.[111] It is also unclear when EPA posted the FAQ document on its website, but commenters only learned about this the week of June 10, 2013, fewer than 10 days before the comment deadline EPA chose of June 21, 2013. Thus it is not clear that EPA even provided a 30-day timeframe for people who did learn about this to comment. And, because it never published the FAQ document in the Federal Register, EPA has failed to show that it has satisfied the SDWA regulatory requirement of providing at least 30 days for public comment. In addition, EPA has failed to provide public notice that includes the items listed in 40 C.F.R. § 25.4(c), including "the location where relevant documents may be reviewed or obtained, identification of any associated public participation

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[104] 77 Fed. Reg. 44,562/1 (July 30, 2012).
[105] Draft FAQ at 1.
[106] Certain alternative forms of notice, are permitted, like person service to all those affected by the changes.
[107] Appalachian Power Co v. EPA, 208 F.3d 1015, 1024 (D.C. Cir. 2000).
[108] *See* 40 C.F.R. Part 25.
[109] 40 C.F.R. §§ 25.4(c), 25.10.
[110] 40 C.F.R. § 25.10.
[111] *Id.* § 25.4(c) (citing § 25.4(b)(2)).

opportunities such as workshops or meetings, the name of an individual to contact for additional information, and any other appropriate information." EPA has provided no supporting material based on which Commenters could have otherwise tried to review and understand its proposed FAQ document.

When EPA published this draft FAQ on its website, EPA did not provide sufficient notice or time for meaningful public comment. EPA must satisfy the notice requirements of 5 U.S.C. § 553(b), and the SDWA, and extend the period for comment to allow for the required public notice and opportunity for public participation.

B. EPA's failure to provide notice and meaningful opportunity for comment is contrary to EPA's and the Executive Branch's commitment to environmental justice and community engagement.

Lead is known by EPA to have disparate impacts based on race and socio-economic level.[112] CDC has also noted that significant demographic differences in blood lead levels (BLLs) exist, and acknowledges the persistence of these demographic differences.[113] In recent actions, including EJ Plan 2014,[114] EPA has made a commitment to environmental justice that it must follow. The 1994 Executive Order on Environmental Justice, No. 12,898, issued by President Clinton first established this principle for agency decision-making. EPA defines "environmental justice" as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development,

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[112] EPA, America's Children and the Environment, 119 (3d ed., 2013), *available at* http://www.epa.gov/opeedweb/children/publications/ACE3_2013.pdf. *See also, e.g.*, America's Children and the Environment, chart on page 125.

[113] *See* CDC, Blood Lead Levels in Children Aged 1–5 Years — United States, 1999–2010 (Apr. 5, 2013), http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a3.htm ("[D]isparities in the [geometric mean (GM)] BLL by factors such as race/ethnicity and income level, which have been important historically, persist. The difference between the GM BLL of non-Hispanic black children (1.8 µg/dL [CI = 1.6–1.9]) GM BLL compared with either non-Hispanic white (1.3 µg/dL [CI = 1.1–1.4]) or Mexican American (1.3 µg/dL [CI = 1.2–1.4]) children remains significant ($p<0.01$) (Table 2). The difference in GM BLL among children belonging to families with a [poverty income ratio(PIR)]<1.3 compared with families with a PIR ≥1.3 also is significant (1.6 µg/dL versus 1.2 µg/dL, respectively [$p<0.01$]), as is the difference in GM BLL by age group and Medicaid enrollment status.").

[114] EPA, Incorporating Environmental Justice in Rulemaking (Sept. 2011), http://www.epa.gov/environmentaljustice/resources/policy/plan-ej-2014/plan-ej-rulemaking-2011-09.pdf; EPA, Action Development Process: Interim Guidance on Considering Environmental Justice During the Development of an Action (July 2010), http://www.epa.gov/environmentaljustice/resources/policy/considering-ej-in-rulemaking-guide-07-2010.pdf; EPA, Draft Technical Guidance for Assessing Environmental Justice in Regulatory Analysis (May 1, 2013); *see also* EPA, Plan EJ 2014, http://www.epa.gov/environmentaljustice/plan-ej/.

implementation, and enforcement of environmental laws, regulations, and policies."[115] As EPA has recognized: "For far too long, many minority, low-income, tribal, and indigenous people in the United States have experienced higher levels of environmental pollution and other social and economic burdens."[116] As a result, "[t]he Administrator has directed the Agency to address the needs of overburdened communities by decreasing environmental burdens, increasing environmental benefits, and working alongside them to build healthy, sustainable, and green communities."[117]

EPA has stated that, "[i]n implementing [Plan EJ 2014], EPA will seek to meaningfully engage with communities and stakeholders."[118] Yet EPA has failed to adequately publish its proposed FAQ in the Federal Register, and failed to provide communities with a sufficient period of time to comment. If EPA means what it says about engaging with communities and empowering "communities to take action to improve their health and environment," it should adequately publish this FAQ and open a new, extended period for public comment and participation.[119] EPA should also reach out to affected communities to seek input, before weakening the important health requirements of the SDWA and RLDWA.

CONCLUSION

For the above reasons, Commenters urge EPA not to finalize the FAQ document as is, but instead to follow the requirements of the Reduction of Lead in Drinking Water Act, Safe Drinking Water Act, and Administrative Procedure Act. EPA should also provide a meaningful opportunity for community input and public comment on the appropriate and lawful way to implement the Act. To discuss further, please contact any of us directly or contact Jennifer Chavez at [redacted]

Sincerely,

Jennifer Chavez
Emma Cheuse
Gordon Sommers
Earthjustice
Washington, D.C.
[redacted]

Yanna Lambrinidou PhD
Parents for Nontoxic Alternatives
Washington, D.C.
[redacted]

[115] Plan EJ 2014 at 3.
[116] Plan EJ 2014 at 1.
[117] Plan EJ 2014 at 1.
[118] EPA, Plan EJ 2014, last updated Mar. 20, 2013, http://www.epa.gov/environmentaljustice/plan-ej/.
[119] EPA, Plan EJ 2014, last updated Mar. 20, 2013, http://www.epa.gov/environmentaljustice/plan-ej/.

Chris Weiss
D.C. Environmental Network
Washington, D.C.

Stephanie Wecht
Jersey City Parents for Progress
Jersey City, NJ

Emily Wurth
Water Program
Food & Water Watch
Washington, D.C.

Jennifer Sass
Mae Wu
Natural Resources Defense Council
Washington, D.C.

EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES
NORTHWEST ROCKY MOUNTAIN WASHINGTON, D.C. INTERNATIONAL

April 28, 2015

Via e-mail to: damico.brian@epa.gov
Dr. Peter Grevatt
Director, Office of Groundwater and Drinking Water
U.S. Environmental Protection Agency
Office of Water (4100T)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: Regulations Implementing the Reduction of Lead in Drinking Water Act of 2011, Section 1417 of the Safe Drinking Water Act

Dear Dr. Grevatt:

Thank you for the opportunity to provide pre-proposal input on regulations implementing the Reduction of Lead in Drinking Water Act of 2011 ("RLDWA"), which amended Section 1417 of the Safe Drinking Water Act, 42 U.S.C. § 300g-6. The following comments are submitted on behalf of DC Environmental Network, Food and Water Watch, Parents for Nontoxic Alternatives, and Water Alliance. Our groups agree that regulatory revisions are needed to achieve the Congressional goals of the Act, and to correct improper interpretations of the Act that EPA has expressly encouraged. We urge EPA to address the following issues in its rulemaking.

1. Clarify that the prohibition against use of non-"lead free" items in installation or repair applies to any use of any drinking water pipe, fitting, or fixture, or its component parts.

In 2013 EPA published a guidance document that contains unlawful and arbitrary interpretations of § 300g-6 and its provisions. In the upcoming rulemaking EPA must correct these interpretations. *See* EPA, "Summary Of The Reduction Of Lead In Drinking Water Act And Frequently Asked Questions," (Dec. 2013) (hereafter "FAQs"); and Comments of D.C. Environmental Network, Earthjustice, Food & Water Watch, Jersey City Parents for Progress, Parents for Nontoxic Alternatives, and Natural Resources Defense Council (June 21, 2013).[1]

In particular, the FAQs discuss how EPA would interpret the longstanding statutory prohibition against using non-"lead free" components in "installation or repair" of public water

[1] We hereby incorporate by reference the attached June 2013 public comments on the FAQs as though fully stated herein.

systems and other plumbing. 42 U.S.C. § 300g-6(a)(1)(A). This broad prohibition, which was not altered by the RLDWA, reflects the Congressional goal to "prevent the contamination of the drinking water supply by lead that has leached from pipes, faucets and other fixtures incidental to the delivery of potable water."[2] However, the FAQs document attempted to add exemptions that go beyond the plain text of the statute by suggesting that certain items that do not meet the new definition of "lead free" may nonetheless be used in repair, including replacement or reinstallation.

Question 23 in the final FAQs states:

> A pipe, fitting or fixture that was installed in a public water system or a facility providing water for human consumption prior to the effective date of the 2011 Act does not need to meet the new definition of lead free regardless of whether it is repaired. The repaired pipe, fitting or fixture is not being "used" in the repair or installation, or "introduced into commerce" and therefore, the requirements of Section 1417 are not triggered as a result of the repair.

FAQs at 11 (emphasis added). On the contrary, any repaired item plainly is "used" in repair. While the statutory term "use" is plain and broad, the highlighted sentence above adopts a subtle, strained interpretation that directly undermines the intent of the law by adding exemptions that do not exist.

The FAQs likewise suggest that there is an exemption for "temporary removal of pipes, fittings, or fixtures for repairs and reinstallation to their original location," and "temporary removal of pipes, fittings or fixtures for storage or calibration and reinstallation to their original location." *Id*.; Questions 23 and 30. The document also claims that "where the replacement of pipes, fittings, or fixtures is part of a device (such as a water heater) made up of several component parts and the device meets the definition of lead free in the 2011 Act, the replacement parts themselves need not meet the new definition of lead free." FAQs at 12. Similarly it states that "the use or introduction into commerce of replacement parts that are not pipes, fittings, or fixtures does not trigger the requirements of Section 1417." *Id*. at 11-12; *see also* Questions 24-28.

These interpretations focusing on reinstallation or replacement fare no better than those concerning repair, because they contravene the broad prohibition against any "use" of "any" pipe, fitting or fixture in "installation or repair." 42 U.S.C. § 300g-6(a)(1)(A). EPA may not

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[2] H. R. Rep. 104-632, at 39 (1996), reprinted in 1996 U.S.C.C.A.N. 1366, at 1402.

distinguish between a fitting or fixture on one hand and its component parts on the other, because virtually all fixtures and some fittings are made up of component parts. Likewise, there is no relevant distinction between using non-"lead free" items in repair and reinstallation in their original location versus using such parts in a new location. Instead, this rulemaking should make clear that the prohibition in § 300g-6(a)(1)(A) and the calculation required by § 300g-6(d)(2) apply broadly to any "installation or repair."

2. Require independent third-party certification for items subject to the lead-free requirement.

For numerous reasons, self-certification should not be considered as a serious option for rules implementing the RLDWA. As noted in the FAQs document, "a recent survey of States found that 47 have requirements for water treatment and distribution system components to comply with NSF/ANSI Standard 61 and most of them require an ANSI-accredited third party certification." FAQs at 10. Plumbing codes contain this requirement as well. This demonstrates that compliance with third-party certification requirements is eminently feasible, since many states currently require it and many manufacturers are currently using third-party certification. Allowing self-certification would create a disadvantage for manufacturers and others who already comply with third-party certification, while creating an unfair advantage for manufacturers and importers who do not obtain independent certification.

Self-certification also raises unnecessary risks for drinking water consumers because it encourages a system of disparate certification practices that are likely to confuse ordinary consumers. EPA has implicitly recognized this in the FAQs where it "encourages manufacturers to use third party certification or to create a system to document compliance (e.g., self-certification)… and to provide important information to subsequent purchasers or users of the product, including retail stores, plumbers and consumers." This reflects the fact that one crucial purpose served by certification is to provide important information to ordinary consumers about what that certification means, including information about possible health risks. Certification must therefore serve the needs not only of sophisticated manufacturers and enforcement officials, but also ordinary residential consumers who are not likely to have the sort of knowledge that would enable them to parse disparate systems of information and certification.

3. Specify stringent and effective labeling both for items that are required to meet "lead free" requirements and those that are claimed to be exempted.

Given the importance of consumer education in fulfilling the public health goals of the RLDWA, EPA should use this rulemaking as an opportunity to identify a more effective system designed to best serve the full range of affected stakeholders. In order to best fulfill the public health protection goals of the statute, labeling requirements should apply both to exempt and

non-exempt products. Labeling should be required both for packaging and for products. This will enable consumers to determine whether the product meets the "lead free" definition if the product becomes separated from the package, as well as after it is installed.

EPA should also explore options for creating a uniform and easily-recognizable system of labeling, akin to EPA's WaterSense labeling program. The WaterSense label is simple and uniform. EPA's website explaining that label identifies seven straightforward criteria that are met by products that bear the label. *See* http://www.epa.gov/WaterSense/about_us/watersense_label.html (last visited 4/23/15). In contrast, "lead free" certification marks are numerous and lack uniformity. EPA's public fact sheet, "How to Identify Lead Free Certification Marks for Drinking Water System & Plumbing Products," *available at:* http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100LVYK.txt (last visited 4/23/15), provides a helpful chart and explanation of twenty-two different markings used by eight different certifying entities. However, from the perspective of an ordinary residential water consumer or do-it-yourselfer, this array of markings is overwhelming and confusing. In addition to uniformity, simplicity is an important consideration. The mark should be simple enough that it can be stamped directly into small parts, and will be unobtrusive if used on fixtures where there are aesthetic considerations.

EPA should also address the fact that none of the marks currently used distinguish between products that meet the new definition of "lead free" under the RLDWA and those that do not. This creates another level of confusion, and is an additional reason in support of developing a new uniform label.

Finally, labeling should not use the statutory term "lead free." By definition, products that meet the statutory definition are in fact not free of lead. It is widely recognized that no level of lead consumption is safe. Therefore EPA's labeling requirements should avoid misleading consumers with this term.

4. Require that products subject to the "lead free" requirement must meet standards for lead leaching.

EPA should require through this rulemaking that "lead free" products be certified as meeting health-effects-based performance standards for maximum leaching levels, in addition to meeting lead content standards. Although the RLDWA removed the reference to voluntary standards for lead leaching, there is no indication in the legislative history whatsoever to suggest that Congress meant to prohibit EPA from exercising its lawful discretion to require compliance with performance standards for leaching.

Tests for lead leaching are especially important due to the nature of the new definition of "lead free," and the calculation method for determining weighted-average lead content. 42

U.S.C. 300g-6(d)(2). Under this formula, a product may meet the definition of "lead free" and yet, because of its design or the placement of its component parts, may nonetheless leach lead at levels of concern. Tests for lead leaching provide an important safety net that looks not just at lead content but at the actual performance of the product and its potential effect on the consumer's lead exposure.

5. Require an affirmative demonstration that components are "not anticipated to be used for human consumption" to qualify for exemption under § 300g-6(a)(4)(A).

The revised regulations should highlight that the statutory exemption under § 300g-6(a)(4)(A) applies only if a product is "not anticipated to be used for human consumption," even if it is intended to be used for nonpotable services. This section of the statute raises two distinct issues: how to assess what is "not anticipated to be used for human consumption," and whether EPA rules should allow dual product lines. This is particularly critical for products that are ostensibly for nonpotable use but are functionally interchangeable with potable products. Such products create an obvious health risk, particularly to residential consumers who might perform their own plumbing work. In addition, certain products that are not expressly intended to be used as a source of potable water may very well be used for that purpose—including, but not limited to, emergency situations.

Regarding dual product lines, the best option for avoiding risk to human health is to prohibit manufacturers from maintaining dual product lines such that potable products that meet the "lead free" requirements are produced alongside interchangeable nonpotable products that do not meet those requirements. A prohibition against dual product lines is the surest way to protect public health by making it difficult or impossible for non-"lead free" products to find their way into drinking water systems and fixtures. However, if EPA contemplates allowing dual product lines, at a minimum it must impose strict requirements for permanently affixed or stamped labeling that is sufficient to inform all potential users that it is illegal and dangerous to use the non-"lead free" part in any setting that is anticipated to be used for human consumption.

Regarding what is "anticipated to be used for human consumption," the rules must highlight that products will only qualify for that exemption after an advance, affirmative evaluation of whether particular products can be "anticipated" to be used for human consumption. This analysis must be undertaken notwithstanding whether the product is expressly designed, marketed, or otherwise intended to be used for nonpotable purposes. Conversely, it would be unreasonable and unlawful to rely solely on intent. As EPA staff acknowledged in the April 14, 2015 webinar on this rulemaking, the statutory term "anticipated" reflects Congressional intent to apply the "lead free" requirement not only when products are intended for nonpotable use, but also when they may potentially be used in the future ("anticipated") for human consumption.

One approach EPA should consider is to determine by rule that certain specific products or classes of products are "anticipated to be used for human consumption." An additional approach that EPA should consider is to specify generally-applicable factors for assessing what is or is not "anticipated to be used for human consumption." This would promote national consistency and help guide states in adopting or further refining their own rules.

Conclusion

In conclusion, we respectfully urge EPA to address each of the issues discussed above in its rulemaking to implement the RLDWA. If you have any questions or would like to discuss please feel free to contact me at [redacted] or [redacted].

Sincerely,

[redacted]

Jennifer C. Chavez
Staff Attorney, Earthjustice

Damico, Brian

From: Mark Anderson [redacted]
Sent:
To:
Cc:
Subject:
Attachments:

Reference: EPA Conference titled "Regulations Implementing Section 1417 of the Safe Drinking Water Act Webinar" April 14, 2015

Dear Mr. D'Amico,

Thank you for the opportunity for input to the EPA's efforts integrating the RLDWA into the Safe Drinking Water Act. Ford Meter Box Company's perspective is based on 117 years' experience manufacturing products used in waterworks applications including sand cast lead-bearing and lead-free brass service valves, check valves, and fittings; exempted sand cast brass and ductile iron service saddles; and stainless steel couplings, tapping sleeves, and repair clamps. Our water conveying products serve municipalities, utilities, and contractors involved in providing potable water service for both new construction and maintenance applications. Ford Meter Box has manufacturing facilities located in Wabash, Indiana, and Pell City, Alabama. With our experience as a guide, we offer the following thoughts concerning the options presented for product identification and compliance demonstration:

Product Identification:

Back in 2010 when California implemented their own lead-free laws for potable water products, manufacturers recognized the need for unique lead-free product identifications to manage inventories as well as a means to prevent cross-contamination of the scrap metal stream. Additionally, within their own manufacturing organizations, unique identifications are necessary to address the potable and non-potable markets that many companies simultaneously serve. As more States enacted lead-free drinking water legislation, the vast majority of water product manufacturers developed and implemented product marking and labeling using common industry terms such as lead-free (LF), no-lead (NL), or other recognizable means such as national standards. Pictures of a Ford Meter Box Company lead-free box label ("NL" green color) and lead-free product with the cast "NL" mark are attached for your reference.

While P.L. 111-380 does not address product marking or labeling requirements, industry has already moved to ensure products are uniquely identified and marked for lead-free drinking water applications as a good business practice and to indicate compliance. Depending upon how the EPA approaches marking will have a direct bearing on the industry implementation cost and timeline. The hot button issue is to consider mandating new marking requirements five years after manufacturers implemented new product names and component part numbers; added lead-free marks to products; revised marketing information, catalogs, and websites; trained distributors and educated end-users; and obtained certifications using the new identities. A change to a universal mark at this point casts a broad net negatively impacting manufacturers, distributors, retailers, and end-users.

Consider the direct cost issue for product creation. Specific to our company, mark changes to sand cast patterns can run $1,000 to $15,000 depending upon the type of pattern and ability to rework the mark space or insert a new mark. Complete new patterns may be required for small cast parts due to the limited space. Changes affecting plastic molds will

carry a charge of $500 to $5,000 per modification. We currently offer in excess of 20,000 product combinations involving sand cast brass that would require a mark modification from the current "NL" identity. It is equally important to include certification change costs as a product name change can run $1,000 to $2,000 per listing based on recognized national laboratory past practice. Note that manufacturers typically carry multiple unique certifications for specific customer applications. For example, Ford Meter Box carries NSF 61, NSF 372, and BNQ listings for the lead-free product lines. A change to the product identity for each certification will carry separate change costs.

A more practical approach is to let manufacturers continue the lead-free product marks already in place and recognized thru five years of exposure and use. If a universal mark is implemented, we recommend a common universal mark (such as NL and LF) be applied to product packaging and associated documentation to indicate compliance and not alter the current on-product marking. This still provides the supply chain and end-user with a readily recognizable mark while offering a reduced impact approach, allowing industry to continue the myriad of product creation processes unaltered. Just as today, should a compliance question arise the user would still be directed to the manufacturer for information.

Compliance Demonstration thru Third Party Certification:

Since the passage of P.L. 111-380 we have seen customer bid documents and specifications overwhelmingly request some form of compliance statement to the national lead-free law for drinking water. Only where a State law mandates third party certification do we see the application of NSF 372. As a result, potable water product manufacturers already use some form of independent third party certification demonstrating compliance to the RLDWA via self-certification or by certification to NSF 372. The use of NSF 372 as the de facto certification for RLDWA products has grown tremendously since the laws inception.

Full product line certification costs are typically a six-figure expense for most large manufacturers. Using one of the nationally recognized laboratories, a new product certification to NSF 372 can run $5,000 to $20,000 per product family depending upon the number of materials and tests required. Not only are there material test costs but also initial submittal fees and review charges (typical $1,500 per product family), annual listing fees ($750 to $1,500 per family), annual product and component material test expenses ($10,000 to $50,000), and annual facility audits ($1,000 to $2,000). While a burden for large manufacturing organizations, the cost for a small business to initiate and maintain NSF certifications can be a hardship. Reference has been made in discussions to NSF 61 as an alternate code source for compliance verification. I must add at this point that while NSF 61 has been changed adding compliance with the SDWA, NSF 61 is a much more robust certification catering to performance rather than prescription per the RLDWA and so is not considered a valid evidentiary measure in this discussion for a 0.25% lead content test.

We encourage the EPA to consider maintaining the current method of self-governing oversight being performed by manufacturers, consumers, and watchdog groups as it continues to provide a satisfactory level of confidence that products meet RLDWA requirements. The information presented by California DTSC shows that once the California potable water lead-free law was enacted product compliance reached a high level of participation in its second year of implementation. We feel this is a fair assessment for the RLDWA at the national level as well. The requirement by customers for some type of compliance statement also drives manufacturers to obtain third-party certifications independent of any government mandate. Conformance certification is truly driven at the grass-roots level by the end-user if a company wants to participate in the market place.

If it is the intent of the EPA to require an independent third party certification to show compliance, we recommend the EPA make the test a generic third-party requirement without a specific mandate for NSF certification. The market or State requirements will drive the need for formal NSF 372 certification, and the flexibility of an open certification will enable small business to show compliance without the expense of a national laboratory and the associated certification maintenance costs.

SDWA Compliance Timeline:

Just as with the launch of P.L. 111-380, a suitable implementation period should be included in any proposal for adding a universal RLDWA mark or obtaining certifications. The timeline must take into consideration the degree of change affecting product marking and type of certifications mandated to enable manufacturers to transition product manufacturing and certification cycles avoiding regulatory and oversight entanglements.

Thank you for the opportunity to participate in the RLDWA and SDWA discussions. If additional information is needed concerning product manufacturing and marking, as well as certification protocols and costs, please do not hesitate to contact me. You can reference Ford Meter Box Company products at www.fordmeterbox.com.

Best Regards,

Mark Anderson
Product Engineering Manager
The Ford Meter Box Co., Inc.
Wabash, Indiana

[redacted]
W: www.fordmeterbox.com

C14 – 33 – U – NL + 03461917

Cat No. **C14-33-U-NL**

QTY **25**

COUPLING – ULTRA – TITE – NO LEAD
3/4" CTS PE ULTRA – TITE by
3/4" FEMALE IRON PIPE THREAD

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The Ford Meter Box Company, Inc. Wabash, Indiana, USA

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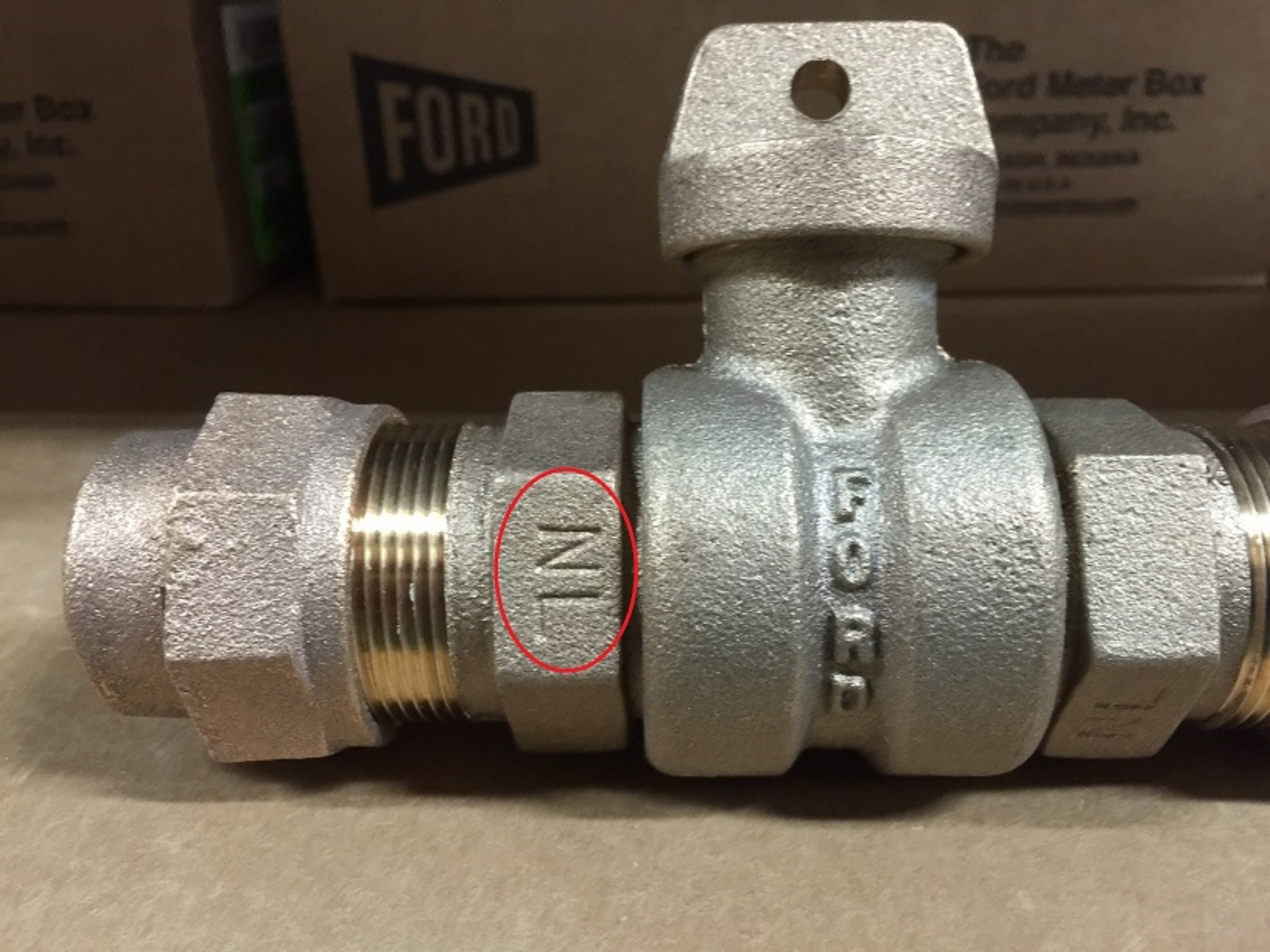
FORD **NL**

CERTIFIED BY TRUEMAIL LABORATORIES, INC.

DRINKING WATER SYSTEM COMPONENT
MEETS NSF/ANSI 61 (2007a) SECTION 8
AND NSF/ANSI 372
COLD WATER 23C


FORD
IN
FORD

INTERNATIONAL ASSOCIATION OF
PLUMBING AND MECHANICAL OFFICIALS

101 Constitution Avenue, NW Suite L110
Washington, D.C. 20001

Ph: 202.414.6177 | Fax: 202.289.3792
http://www.iapmo.org

April 30, 2015

Mr. Brian D'Amico
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Subject: Regulations Implementing Section 1417 of the Safe Drinking Water Act: Prohibition on Use of Lead Pipes, Solder and Flux.

Docket Number: FRL-9925-49-OW

Via email: Damico.Brian@epa.gov

Dear Mr. D'Amico,

The International Association of Plumbing and Mechanical Officials (The IAPMO Group) appreciates the opportunity to provide comments to the U.S. Environmental Protection Agency (EPA) on regulations implementing Section 1417 of the Safe Drinking Water Act: Prohibition on Use of Lead Pipes, Solder and Flux.

Founded in 1926, The IAPMO Group remains the preeminent code development association for plumbing, mechanical and solar codes. With approximately 5,000 members, The IAPMO Group is comprised of plumbing and mechanical inspectors, engineers and code officials, plumbing and mechanical installers and contractors, water and energy efficiency experts, and manufacturers of plumbing products – all disciplines that will be impacted as a result of the final rulemaking effort.

Our comments are as follows:

Harmonize language in the regulation with industry-accepted definitions

The IAPMO Group is the proud developer of the Uniform Plumbing Code that is widely adopted by jurisdictions throughout the United States and used as the foundation of regulations in countries around the word. Integral to this code is the use of plumbing product definitions that are widely understood by the various stakeholders throughout the industry. We strongly encourage EPA to follow the principles of OMB Circular A119 and to harmonize its definitions for plumbing products in a final regulation with those that are widely accepted by the industry. This terminology includes items such as: pipe, pipefitting, nonpotable, plumbing fitting or fixture fitting, and plumbing fixtures.

Recognize the importance of third-party certification

IAPMO R&T is the industry leader in the testing and certification of plumbing related products. It is accredited by American National Standards Institute (ANSI), Standards Council of Canada

(SCC) and Entidad Mexicana de Acreditación, A.C. (EMA) along with recognition by Comisión Nacional del Agua (CONAGUA). For almost 80 years, we have worked closely with manufacturers and Authorities Having Jurisdiction (AHJ) to protect the public health and safety by ensuring that products represent the highest degree of integrity in showing compliance with established codes and standards.

Third-party certification has long been recognized as an essential step in ensuring that each of the components that comprise our modern plumbing systems meet standards established by our communities. This system creates a barrier that helps to prevent the use of unsafe or inferior products that threaten consumers' health and property. It also helps to protect consumer confidence in legitimate manufacturers when they know that the product they are purchasing meets the safety and performance standards that have been set forth. In a final regulation, we encourage the EPA to recognize the value and essential role that third party certification plays in protecting public health and confidence.

Increase pressure on the manufacturers of noncompliant products

Unfortunately, there are still some products that continue to ignore the requirements set forth by the Reduction in Lead Drinking Water Act (RWLDA) and noncompliant products continue to find their way into market. This can threaten public health and serves to undermine the important steps EPA is taking with this current rulemaking. The IAPMO Group joins other stakeholders in the plumbing industry in encouraging the EPA to work with U.S. Customs and Border Protection and the Federal Trade Commission in strengthening their current RLDWA enforcement practices.

Again, the IAPMO Group appreciates the opportunity to comment on this important rulemaking and welcomes any questions regarding our positions.

Sincerely,

Dain M. Hansen
Vice President
Government Affairs
The IAPMO Group

NIBCO
AHEAD OF THE FLOW®

WORLD HEADQUARTERS
1516 MIDDLEBURY STREET
ELKHART, IN 46516-4740

P: 574.295.3000
F: 574.295.3307

July 15, 2015

To: U.S. Environmental Protection Agency

Re: Comments on the potential regulatory options as presented by Brian D'Amico, US EPA on April 14th 2015

Labeling on Lead Free Products:

A single mark for all Lead Free products intended for use in drinking and cooking water systems would be a benefit to simplifying the learning curve for industry professionals as well as retail consumers (DIYR's) however; the appropriate time to establish this has long past. As an industry we have already established NSF/ANSI-61 and NSF/ANSI-372 as the standards to show plumbing code compliance. Additionally each third-party agency has already established marking requirements. As a manufacturer offering over 670 Brass or Bronze Lead Free fittings and valves intended for use in drinking and cooking water systems NIBCO INC has already incurred significant cost to modify product molds and other product marking equipment, so a mandated change now would force NIBCO INC to incur these expenses yet again.

A few weeks ago I met with local building inspectors. They too voiced their frustration with all the different product markings. From my perspective this is to be expected. Anytime there are new products or significant changes in products there is a learning curve for everyone. The inspectors I met with have already figured out the majority of the markings and will quickly understand the rest. Besides they always have the option to have the contractor provide additional information.

As for the DIYR's they are assuming responsibility for making the right decision both in the items they purchase as well as the installation. Changing the markings for Lead Free should not be pursued as a substitute for the DIYR's lack of proper research and preparation. As a DIYR myself it's my opinion that plumbing products are not the most confusing products DIYR's deal with.

The speaker from Clean Water Action proposed more consistency and improved manufacturer packaging over time. I would propose the limited research conducted by the DTSC shows that in a very short period of time the old inventory at retailers should be replaced with lead free products. Many of the products purchased by homeowners are actually installed by licensed plumbing contractors as required by local law who are more familiar with the markings and are taking responsibility for the proper installation. If everything in retail and wholesale distribution intended for use in drinking and cooking water is lead free do we still have an issue with the variation in lead free marking? This appears to highlight an area not currently being addressed. We commonly talk about manufacturers with third-party listed products and consumers/end users but; it's the retailers (more specifically their buyers) that must be educated, as well as regulated, to ensure lower-cost, non-compliant products are not substituted for the compliant products and to keep products intended for use in

drinking and cooking water systems separated from non- compliant products intended for other applications.

Labeling of exempt products and products not intended for use in drinking and cooking water systems:

2" and larger gate valves as well as hose bib valves are commonly offered as lead free products, but can also be interpreted as exempt. If labeling is mandated to identify these items as exempt it could add to the confusion since they will be marked as lead free and exempt. With the requirement for all compliant products intended for use in drinking and cooking water systems to be tested and marked accordingly is there benefit in additional marking mandates? An example would be a 316 stainless steel pipe manufacturer or a refrigeration copper tube manufacturer making products for use in industrial/chemical processing applications would be mandated to either obtain the NSF/ANSI-61 and NSF/ANSI-372 certifications or mark the pipe as non-compliant even though it would be compliant if tested. This potentially adds unintended additional cost to manufacturing and confusion to the supply chain/end users of this product.

Further there is nothing stopping a manufacturer from applying markings to add additional clarification on either the products exempt status or non-compliant status today.

Demonstration of Compliance with Lead Free Requirements:

Third-party certification requirements are covered by the International and Uniform Plumbing Codes. The RLDWA should remain as currently written on this subject since these are the documents referenced by the industries plumbing inspectors.

Sincerely,

Andrew Granzow
Standards and Codes Manager

PLUMBING MANUFACTURERS INTERNATIONAL

April 29, 2015

Mr. Brian D'Amico
Chemical Engineer
Office of Water
U.S. Environmental Protection Agency
Mail Code 4607M
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460-0001

RE: REGULATIONS IMPLEMENTING SECTION 1417 OF THE SAFE DRINKING WATER ACT WEBINAR

Dear Mr. D'Amico:

Plumbing Manufacturers International (PMI) appreciates this opportunity to provide comments to the U.S. Environmental Protection Agency's (EPA) Office of Water as a follow-up to PMI's presentation at the *Regulations Implementing Section 1417 of the Safe Drinking Water Act Webinar* held on April 14th. PMI is an international, U.S.-based trade association representing 90% of U. S. plumbing products sold in the United States.

PMI was a key proponent of the RLDWA and worked in bipartisan fashion on Capitol Hill to secure its passage, with a broad coalition of industry and water organizations. Additionally, PMI and its members worked diligently to educate suppliers, engineers, installers, and the public about the manufacturer, distribution and installation of lead-free plumbing products that are required under the RLDWA. Furthermore, PMI supported a national approach to achieve federal consistency instead of a patchwork of state standards.

In regards to the April 14th RLDWA webinar, PMI would like to reiterate the points we made within our presentation:

Clarify and Harmonize Language

- **There needs to be consistency between the EPA FAQ document and final regulation.** For example, the EPA FAQ document makes a strong recommendation for the labeling of exempted products even though such products are not required to meet the RLDWA.

Clarify Definition and Terms

- **Harmonized definitions with industry standards.** Based on the strong preference for industry standards in OMB Circular A119, the EPA should utilize existing terminology that already exists in industry standards such as: pipe, pipe fitting, nonpotable, plumbing fitting or fixture fitting, and plumbing fixture to name a few.

Clarify Intent

- **Replace "anticipated" with "intended" in the final regulation.** The current language of the RLDWA contradicts laws in such states as California, Vermont, Maryland, and Louisiana. Furthermore, manufacturers produce products for an intended purpose. There is no way for a

manufacturer to "anticipate" how their products are going to be used beyond their "intended" purpose.

Clarify Exemptions

- **Exempt replacement parts.** The RLDWA was not intended to prevent replacement plumbing manufacturers from supplying replacement parts for devices that were installed pre-2014 and remain under warranty. In fact, the EPA FAQ document (FAQ #27) indicates that as long as replacements parts are not "pipes," "fittings" or "fixtures," they are not required to meet the lead free requirements of the RLDWA.
- **Exempt emergency drench showers, eye and face wash fixtures.** These fixtures are not required to meet the requirements of NSF 61. Additionally, there is no anticipated use of such fixtures as a source of water for human consumption.

In regards to the potential regulatory options being considered by the EPA, PMI would like to provide the following comments:

Labeling of Lead Free and Exempted Products

- **No additional product labeling is needed for compliant products.** It is not necessary to prescribe additional product labeling language for lead-free compliant beyond that described in the applicable product standards. OMB Circular A119 makes a strong preference for the use of consensus industry standards in Federal regulation and procurement, and therefore, the marking and labeling requirements in such standards should continue to be supported by the EPA.
- **Product labeling of noncompliant products is not necessary.** Because of robust labelling requirements for RLDWA compliant products, it is not necessary for noncompliant product to also be labeled. Furthermore, there is no product standard that exists that establishes labeling requirements for noncompliant products.
- **Improve educational outreach.** EPA could improve its current educational outreach to the professional plumbing community, as well as collaboration with the plumbing product retailers and distributors concerning lead-free materials at the point of purchase for retail customers, and education of sister agencies, including those with oversight of imported products. In addition, EPA should make it easy to locate on the agency website its document on product marking and package labeling requirements, *How to Identify Lead-Free Certification Marks for Drinking Water System & Plumbing Materials*. PMI members, and most manufacturers within the U.S., already use the recommendations contained within the document for marking product and/or labeling packaging.
- **Not all plumbing products can be marked and/or labeled.** Given the aesthetic nature and/or size constraints of some plumbing products, the product packaging is labeled versus the actual product. This of course is done in compliance with the applicable product standard(s).

Demonstrating Compliance with Lead Free Requirements

- **Third-party certification is sufficient to demonstrate compliance.** PMI supports the current system of third-party certification as required by the model plumbing codes adopted throughout the U.S., which requires third-party certifier marks on plumbing products and/or packaging to indicate compliance to a standard. Such marks, when authorized by a certification body after a product successfully completes a conformity assessment review and certification is granted, convey that all mechanical performance requirements and material compliance requirements to protect drinking water in accordance with NSF 372 have been successfully met. Furthermore, 16 CFR 305.16 (Labeling and marking for plumbing products) requires plumbing fitting manufacturers to mark "A112.18.1" on both product and packaging to

demonstrate compliance to the actual product standard. The standard also requires testing to NSF 372 as a means to indicate compliance with the RLDWA as well.

- **Continuous compliance.** Plumbing manufacturers are required to go through a continuous compliance process to demonstrate to the third-party certifier that their products continue to meet the requirements of the RLDWA.
- **More pressure should be put on those who manufacture noncompliant products.** There are still some manufacturers, mainly those located outside the U.S., that continue to ignore the requirements of the RLDWA. We would encourage EPA to work with the U.S. Customs and Border Protection and the Federal Trade Commission (FTC) to strengthen their current practices of enforcing the RLDWA.

In closing, PMI would encourage EPA to please reference our detailed comments submitted on June 21, 2013 regarding the *Draft Reduction of Lead in Drinking Water Act: Frequently Asked Questions (FAQs)* document, as well as our comment letter dated December 19, 2013 on the final EPA FAQs document which was released on October 22, 2013.

PMI looks forward to working with EPA as the agency moves forward on the rulemaking process for codifying the RLDWA. PMI strongly encourages the EPA to consider our comments and recommendations. If you have any questions regarding our comments, please do not hesitate to contact me.

Sincerely,

Matt Sigler
Technical Director
Plumbing Manufacturers International
[redacted]

Damico, Brian

From: [redacted]
Sent:
To:
Subject:

As far as we can tell, the Lead Free Act has been created to expend huge amounts of resources, and create hardships on small business, to fabricate the appearance of the government accomplishing something that isn't real. From a public standpoint, who wouldn't want safe drinking water? The law sounds wonderful. In reality, the law does very little good, if any. I have looked for studies that substantiate such a massive undertaking, but have not been able to find anything specific. Lead is bad for your health, no one can argue that point. However, many things in a large enough quantity create ill health effects and we continue to use them in moderation without difficulty. Too much exposure to the sun will give you skin cancer and the chemicals we use to purify our water supply will kill you out of proportion. However, we are still going to go outside and purify our water supply.

Fittings and apparatuses with a much larger lead content are present in every public water system in America and will remain there for the next century at least. Bottled water, many American's primary drinking source, does not fall under any such rules and dentists are still putting lead fillings in their patients mouths every day. If that all makes sense, I am not sure how.

This law impacted small businesses in a very difficult way. Many small manufacturers could not afford the cost of changing their entire product offering, giving an unfair advantage to larger companies, and in many cases forcing the small businesses to shut down entirely. The new regulation increased the cost of each item produced with the lower lead material by 15% in most cases. The higher cost effects the manufacturer, the supplier, and the end user in a negative way. Driving costs up also effected many ancillary industries and trades such as building and construction.

In short, we are not a fan of the law.

Respectfully,

Lee Gregory

[redacted]
www.rg3meter.com