



May 11, 2017

Water Docket
Environmental Protection Agency
Mail code: 2822T
1200 Pennsylvania Ave. NW
Washington, DC 20460

RE: Comments on Proposed Rule "Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water," Docket ID No. EPA-HQ-OW-2015-0680

Dear Sir or Madam:

The Northeast-Midwest Institute appreciates the opportunity to comment on the Environmental Protection Agency's Federal Register notice on the proposed rule *Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water*. This regulation is intended to codify and clarify requirements under the Reduction of Lead in Drinking Water Act of 2011 (RLDWA) and the Community Fire Safety Act of 2013 (CFSA). The Northeast-Midwest Institute commends the EPA on this action to clarify these requirements and establish labeling and certification requirements so that plumbing products can be clearly identified when they are and are not lead free.

This rule is an essential companion to the Lead and Copper Rule (LCR), which establishes requirements for lead sampling at customers' taps and treatment requirements for reducing lead levels when high lead is measured at customers' taps. While corrosion control is effective for reducing lead exposure at the tap, it is not foolproof for preventing lead exposure. Any time lead is in contact with drinking water there is a risk of lead exposure. Lead free plumbing is the foundation of public health protection from lead in drinking water. This proposed rule is critical for creating a baseline of preventative public health protection as residents replace their household water infrastructure over time. Failure to create a sufficiently protective rule that prevents unnecessary exposure to lead in drinking water will continue to create long-term problems that fall under the LCR, add costs to public water systems that must maintain compliance with the LCR, and continue to expose innocent residents to unnecessary lead in their drinking water whether by public water systems and private wells.

In this era of Do-It-Yourself (DIY) home improvements, the average citizen is purchasing and installing their own plumbing materials more than ever anticipated during the original lead ban in 1986. A massive culture has built up around amateurs remodeling and improving their own homes, generating cable channels dedicated 24-7 to home improvement, blogs where the writers detail their daily renovations, and Home Depot and Lowes generating \$88.5 billion and \$59 billion, respectively, in revenue in 2016. In this culture it is absolutely critical that if lead free and leaded plumbing products are sold in the same stores and on the same shelves that they are clearly and explicitly marked so there is no question of which product is appropriate for which application.

The Northeast-Midwest Institute recommends EPA make the following changes in finalizing the proposed rule:

1. Eliminate Exemptions for pipes, fittings, and fixtures that are compatible with potable water systems
2. Maintain requirements to meet third party standards
3. Require third party certification for all manufacturers of pipes, fittings, and fixtures

Eliminate Exemptions for pipes, fittings, and fixtures that are compatible with potable water systems

The requirement most protective of public health would be to require all pipes, fittings, and fixtures that are compatible with potable water systems to meet the “lead free” definition in the RLDWA, and to require them all to be third party certified, continuing the use of both ANSI/NSF 61 and 372. This would be the simplest rule approach to implement and enforce, and most importantly, it would not rely on the average consumer to discern package labels and product markings to select the appropriate product for their home improvement needs.

If exemptions are eliminated, there would be no conflict between the fittings and fixtures that plumbing manufacturers intend for potable water use and those that the general public expect to be for drinkable water. There are many scenarios in which a reasonable person would expect any pipe, fitting, or fixture that is compatible with potable water systems to be expected for human consumption. Some examples are:

- The chemistry teacher filling their water bottle every day from a faucet in the laboratory.
- The handyman hooking up an outdoor sink to the hose bib for summer barbeque season.
- The frequent flyer filling up their water bottle in an automated faucet in the airport bathroom.

These are just a handful of examples. If a pipe, fitting, or fixture is compatible with potable water systems, you can expect someone to install it for potable water use. Unfortunately this proposed regulation focuses on minimizing the burden on manufacturers and places all the burden on consumers to figure out the potentially harmful contents of pipes, fittings, and fixtures. It would be much simpler, more reliable, and more effective to regulate the limited number of manufacturers of pipes, fittings, and fixtures that are compatible with potable water systems than to hope for the best when the homeowners and landlords of 318 million Americans go to the store to repair their home plumbing systems.

If the exemptions are maintained, public water systems will have to depend on their customers to make the right decisions about household plumbing. If compliance samples are collected where customers have installed the wrong materials, public water systems will have to spend more money to maintain compliance with the LCR. The rule as proposed places increased cost and burden on both customers and public water systems.

According to the preamble of the proposed rule, “Lead is a highly toxic contaminant that can cause adverse neurological, cardiovascular, renal, reproductive, developmental, immunological and carcinogenic effect...a level of lead exposure below which adverse effects do not occur has not been identified.” The health effects of lead are irreversible. If these exemptions are eliminated in the final rule, there will be no risk of preventable lead exposure due to a product being used for the wrong

application. The Northeast-Midwest Institute recommends elimination of exemptions for pipes, fittings, and fixtures that are compatible with potable water systems.

Maintain third party standards

In the preamble to the proposed rule, EPA states “Congress enacted the RLDWA....and eliminated the requirement that lead free products be in compliance with standards established in accordance with SDWA section 1471(e) for leaching of lead from new plumbing fittings and fixtures.” While the RLDWA does not maintain 1417(d)(3), a 2010 report from the House Committee on Energy and Commerce (U.S. House Committee on Energy and Commerce, 2010) interpreting the RLDWA states: “The existing provisions on lead fixtures include a requirement for the Administrator to provide technical information and assistance to qualified third party certifiers for the development of voluntary standards and testing protocols for lead leaching. Nothing in this Act is intended to amend or abridge that direction.” Implementation of “lead free” for fittings and fixtures via compliance with NSF 61 has been functioning since it was originally developed to control leaching from plumbing materials, and it is the standard that was required for compliance with the 1996 SDWA amendments.

While the new definition of “lead free” reduces the percentage of lead in any pipe, fitting or fixture, it does not address the total mass of lead that might be released through corrosion or leaching. A 20 foot section of ¾” pipe that has not more than a weighted average of 0.25 percent lead with respect to the wetted surface can have up to 1.41 in² of lead in contact with drinking water, enough to result in acute lead poisoning. To reduce lead in drinking water, the standard for lead in plumbing pipes, fittings, and fixtures must address both the percentage of lead and the total mass of lead contained in pipes, fittings, and fixtures. The continued use of NSF 61 solves this problem and will ensure that lead does not leach into water supplies, especially in situations where 0.25 percent of the wetted surface equates to a substantial quantity of lead. This is even more important where corrosion control is not used, particularly in private well applications (Pieper et al., 2016).

In addition to codifying the new definition of “lead free,” the final rule should reinstate the requirement that lead free products be in compliance with standards established in accordance with SDWA section 1471(e) for leaching of lead from new plumbing fittings and fixtures, for consistency with existing practices, consistency with plumbing codes, consistency with the intent of Congress, and for protection of public health. EPA should also reference NSF 61 directly in the final rule to clarify this issue, add a requirement for pipes to be in compliance with the standard, and require consistent product markings so consumers can be assured the plumbing supplies they purchase will not poison their families.

Require Third Party Certification for All Manufacturers of Pipes, Fittings, and Fixtures

Self-certification requirements for manufacturers with fewer than 100 employees in lieu of third party certification required for larger manufacturers will potentially lead to two different quality products with labeling that may imply that the products are equivalent. While accommodating smaller manufacturers theoretically reduces burden for those companies and helps them stay in business, having two sets of standards to enforce increases the burden for EPA and for states implementing the regulations. In the era of regular budget cuts for EPA and state public water system supervision

programs, EPA will be able to more effectively implement and enforce these standards for better public health protection if the current standard for third party certification applies to all manufacturers.

The following comments address the specific requests for comments presented by EPA:

1. EPA requests comment the concerning the appropriateness of the definitions set forth in this proposal.

In the definition for “Fixture,” item (3) states “water heaters, water pumps, and water tanks, unless such fixtures are not used for potable uses.” Some in the water quality field would say that water heaters were never intended for potable uses, but most average citizens are not aware that they should not drink hot water from the tap. A more protective definition here would be “***water heaters, water pumps, and water tanks, unless such fixtures are not connected to potable sources.***”

The definition for “Plumbing fitting” should include motion sensing faucets. While some do not consider these faucets to be for potable uses, the majority of the public expect water from all faucets to be drinkable.

The definition for “Potable uses” should read as follows: means services or applications that provide water ***that any average consumer would assume can be used for*** human ingestion such as for drinking, cooking, food preparation, dishwashing, teeth brushing, or maintaining oral hygiene.

2. EPA requests comment on whether the rule should require the specific phrase “lead free” on package labeling and product markings rather than allowing some discretion in the use of phrases

The Northeast-Midwest Institute urges the EPA to consider a final rule that only offers exemptions to pipes, fittings, and fixtures that are incompatible with potable water systems. If the costs of the proposed regulation to consumers and public water systems are adequately accounted for in the economic analysis we believe that this will be the most cost effective option.

In the instance that EPA changes the scope of the exemption in the final rule, it will still be important to have accurate package labels and product markings. If the final rule implements one of the options presented in the proposal, the final rule must be explicit with regards to the package labeling and product marking requirements, otherwise it will be impossible for consumers to compare products as it is currently. However, it is not sufficient to just label products as “lead free.” There has been a definition for “lead free” since 1986, and it is not the same as today’s definition. It is possible that in the future the definition for “lead free” will actually be, in fact, lead free. Therefore the requirement for package labeling and product markings should include both “lead free” and the year of the definition of “lead free” that the product meets. The burden should be placed on the manufacturer to clearly mark the products, not on the consumer to figure out what the product contains. Because the RLDWA definition became enforceable in 2014, the products that meet this definition could be marked “Lead Free 2014,” or equivalent.

If different manufacturers have their own discretion for marking packages it will be nearly impossible for the average DIYer to distinguish “lead free” from leaded plumbing products. If EPA allows the proposed exemption for labeled products that are not “lead free” in the final rule, EPA must develop a substantial

outreach program to educate hardware, retail, farming, and online stores on the potential for lead exposure to their customers. It will be EPA's responsibility to ensure that every store that sells plumbing materials understands the consequences of this regulation and is able to pass the information on to their customers.

A universal requirement for third party certification will also streamline product markings and package labeling.

3. EPA requests comment on the period of time that should be allowed for a transition period to enable manufacturers to modify their product and packaging to incorporate such phrase.

In the wake of the Flint Water Crisis, people are paying attention to lead in drinking water more than ever. Many plumbers and homeowners are replacing fixtures with the understanding that newly manufactured materials are "lead free." However, a lack of current labeling and certification requirements are creating very inconsistent results on the shelves of small hardware stores and big box stores alike. Given this current rush to replace leaded plumbing, the timeline to improve package labeling should be as short as possible. Three years is too long.

4. EPA requests comment on whether a specific phrase should be required on both the package label and product marking or whether an abbreviated message should instead be allowed on the product.

An abbreviated message, symbol, or logo on the product is appropriate if it is explicitly required as standard for all pipes, fittings, and fixtures that meet the definition of "lead free"; and if a definition of that abbreviated message is standard in all plumbing codes, available on the EPA website, and required on all product packaging. For example, the packaging could state, "The marking "LF 2014" on this fixture indicates that this product meets the definition for "lead free" as part of the Reduction of Lead in Drinking Water Act that went into effect in 2014."

5. EPA requests comment on whether the rule should allow for either package labeling or product marking rather than package labeling and product marking.

EPA should require both package labeling and product marking. When homes change hand, the new owners need a simple way to find out if their plumbing is lead free and this can be most easily accomplished through product marking. Home and plumbing inspectors need a simple way to verify that materials used in construction meet all the relevant requirements, and appropriate informative product markings are the only way to achieve this. However, when people who are not certified plumbers are purchasing these items in the store they need the more thorough labeling and explanation to be present on the packaging so they can clearly and confidently pick the right product for their application.

6. EPA requests comment on whether the rule should require any package labeling or product marking.

EPA must specify explicit requirements for package labeling and product marking. If left to the discretion of the manufacturers, these markings will be meaningless and impossible for anyone, including certified plumbers, to compare products and select the appropriate product for the appropriate application. If EPA does not require specific labeling, any abbreviation as a product marking will be meaningless. This is

evidenced in the EPA document [“How to Identify Lead Free Certification Marks for Drinking Water System & Plumbing Products”](#) developed to help consumers select lead free products that meet the 2014 requirement. This EPA document demonstrates how ineffective and uninformative the current markings are.

At a bare minimum, all retail products sold in stores and online and marketed to the average consumer should bear explicit and clear language regarding lead content and whether it can be used for drinking water or not.

7. EPA requests comment on the criteria listed for qualifying for the “used exclusively” exemption and reasons why EPA should not extend the used exclusively for non-potable services exemption to plumbing products that are physically compatible with drinking water systems.

As stated previously, the rule requirement most protective of public health would be to require all pipes, fittings, and fixtures that are compatible with potable water systems to meet the “lead free” definition in the RLDWA. EPA should not extend the used exclusively for non-potable services exemption to plumbing products that are physically compatible with drinking water systems for the following reasons:

- This would be simplest rule approach to implement and enforce,
- This approach does not rely on the average consumer to discern package labels and product markings to select the appropriate product for their home improvement needs.
- It is much simpler, more reliable, and more effective to regulate the limited number of manufacturers of pipes, fittings, and fixtures that are compatible with potable water systems than to hope for the best when the homeowners and landlords of 318 million Americans go to the store to repair their home plumbing systems.
- Public water systems will not have to depend on their customers to make the right decisions about household plumbing and will reduce PWS compliance burden with the LCR.
- No opportunity for error of using the wrong material guarantees public health protection, and lower costs associated with lead exposure.

Further, criterion (b) of the “used exclusively” exemption states “the packaging is clearly labeled that it is not for use for water for human consumption.” This is not sufficient for the protection of public health. If a homeowner intentionally or unintentionally uses a pipe, fitting or fixture not intended for human consumption in an application for human consumption, the packaging will be long gone before the next homeowner or renter moves in. If the exemption is maintained, it must require that the fixture itself is clearly marked “non-potable contains lead” or equivalent so that residents can easily identify whether the proper materials were installed in their potable water system. Any fixture that is too small or cannot include these markings for any reason should not be exempt.

8. EPA requests comment on whether the labeling of packaging of pipes, fittings, or fixtures as not for use for water for human consumption is sufficient to inform consumers of the appropriate use of the product.

Many people do not read all the packaging when purchasing a product. Sometimes employees at a plumbing parts store might steer a customer toward the lowest cost pipe, fitting, or fixture that can work in a given application, leading a customer to ignore the markings on a package. Most DIYers have no idea that two classes of plumbing products exist. If EPA chooses to rely solely on package labeling

and product markings to identify pipes, fixtures, and fittings that do not meet the definition of “lead free,” then the package label must be more complete and informative about the content of the product and the consequences of installing leaded materials in potable systems. The simpler alternative is for EPA to require all materials that are compatible with potable water systems to be lead free.

An example of appropriate labeling if the exemption is maintained would be the following: “This product contains lead and is illegal to use in any plumbing system providing water for human consumption. Lead in drinking water can cause serious health and development problems, especially for pregnant women and young children.” In addition, the pipe, fitting or fixture itself must be clearly marked as not for human consumption.

9. EPA requests comment on the lack of potable uses for specific plumbing devices.

The exclusion of clothes washing machines, fire suppression sprinklers, eyewash devices, sump pumps and emergency drench showers seems reasonable on the surface since one would not expect these products to be used for drinking. However, when lead is continued to be used in commerce it continues to spread and result in lead contamination. Manufacturing results in air release of lead particles, deposition on soils, and disposal issues. Any opportunity to eliminate lead from manufacturing is an opportunity to remove lead from the environment. While eliminating lead from these products may not affect lead exposure through drinking water it will prevent lead exposure through other media.

10. EPA requests comment on its interpretation of 1417(a)(1)(B) with regard to leaded joints for the repair of cast iron pipes.

EPA consistently states that there is no contribution of lead from water distribution mains, and that sources of lead in public water systems are either in the source water, lead service lines, or household plumbing. If EPA continues to exempt leaded joints in the repair of cast iron pipes, this exemption should be supported by appropriate data to demonstrate that the lead contribution from these joints are negligible and the exemption is appropriate. As cast iron pipes corrode and are phased out over time, a prohibition on leaded joints for cast iron mains could accelerate the replacement of cast iron mains over repair. Older cast iron mains cause a variety of water quality and reliability issues. By raising the cost and difficulty of repair, replacement will become a more easily justified solution and will result in multiple overall water quality benefits for public water systems.

11. EPA requests comment on whether third party certification should be required of U.S. manufacturers regardless of the number of employees.

Self-certification requirements for manufacturers with fewer than 100 employees in lieu of third party certification required for larger manufacturers will potentially lead to two different quality products with labeling that may imply that the products are equivalent. While accommodating smaller manufacturers theoretically reduces burden for those companies and helps them stay in business, having two sets of standards to enforce increases the burden for EPA and for states implementing the regulations. In the era of regular budget cuts for EPA and state public water system supervision programs, EPA will be able to more effectively implement and enforce these standards for better public health protection if the current standard for third party certification applies to all manufacturers.

While this option would appear to increase flexibility for small manufacturers, it is unlikely that major fixture suppliers on the market (e.g., Moen, Delta, Kohler) would risk using parts or components from suppliers or subcontractors that do not have traceable certification. It will be much simpler for the major companies to do business with small suppliers that use standard third-party certification, and it provides more business opportunities for small manufacturers to play by the same rules as all other manufacturers.

This strategy builds on the existing plumbing industry framework wherein a third-party certification requirement is already referenced in plumbing codes and standards adopted by most states. Manufacturers use these requirements to confidently and transparently document compliance by subcontractors or suppliers of components with lead leaching or lead-free composition standards throughout the production and distribution processes. They don't need to add their own in-house vetting and validation programs for any purchased sub-assemblies or components from other manufacturers. The startup cost for a small manufacturer to develop their own certification process could easily be more expensive than using a third party because they would need access to laboratory equipment and expertise for the testing protocol if done properly. If everyone in the industry has to use third party certification, costs for certification will be more competitive. There are already 8 different certification bodies that do this type of work.

12. EPA requests comments on whether U.S. manufacturers should have the option of conducting either third party certification or self-certification for products they produce.

Allowing U.S. manufactures to choose for themselves the options of third party certification or self-certification will create a mix of inconsistent and confusing products that will be difficult for both certified plumbers and DIYers to compare and select the most appropriate pipes, fittings, and fixtures for home improvement projects. Again, allowing this choice will increase the enforcement burden on EPA; reduce the overall public health protection that could be provided by consistent third party certification of all pipes, fittings, and fixtures that meet the "lead free" standard; and increase costs for public water systems.

13. EPA requests comments on whether there is a need for some manufacturers to have a self-certification option.

This regulation concerns the safety of drinking water for all potable water applications in the United States. Any time lead is present in plumbing products, there is the potential for lead in drinking water. The pipes, fittings, and fixtures manufactured in compliance with the "lead free" requirements will substantially reduce real and potential lead exposure nationwide, but especially when installed in homes served by public water systems that do not have optimized corrosion control and in homes with private wells with no corrosion control. Third party certification is a small price to pay for the minimal assurance that pipes, fittings, and fixtures are in compliance with the "lead free" requirements of this regulation. All U.S. citizens deserve this assurance, regardless of the size of the manufacturer of their plumbing products.

However, if EPA chooses to allow for self-certification in the final regulation it is imperative that this is prominently and clearly marked on packaging labels and product markings. For example, package labels from a company that self-certifies should be clearly marked, "this product has not been tested by a third party to verify whether it meets the "lead free" requirements of the RLDWA." When clearly and

obviously marked, consumers will have the ability to make an informed choice regarding the fixtures they purchase for their home improvement projects.

14. EPA requests comments on whether third party certification should be required of importers of foreign manufactured plumbing materials regardless of the number of employees at the foreign manufacturer

Following the previously provided comments, EPA should require third party certification of all plumbing materials from all size manufacturers. However this is even more critical for foreign manufacturers. Self-certification must not be allowed for any foreign manufacturers. There have been many documented instances of children's products made in other countries that do not meet lead standards in the U.S. and food products that do not meet U.S. safety standards (Moore, 2011). Again, there is no reason to take these kinds of risks with drinking water in the United States. Requiring foreign manufacturers to meet third party certification will save money in the United States through reduced lead exposure and reduced need for corrosion control as these products begin to substantially replace current plumbing in service. No foreign manufacturers should be eligible for self-certification. No manufacturer should be able to label their products as "lead free" when there is evidence of testing to the "lead free" requirement.

15. EPA requests comment on whether there are more appropriate criteria for requiring third party certification for manufacturers

Following the previously provided comments, EPA should require third party certification of all plumbing materials from all size manufacturers for all potable water pipes, fixtures, and fittings. Rather than reducing the burden on manufacturers, EPA should be putting priority on transparent and consistent certification and labeling so that consumers have all the information they need to purchase pipes, fixtures, and fittings that will provide safe drinking water to their families. A hodge-podge of third party and self-certification will not achieve this goal.

16. EPA requests comment on whether self-certification should be allowed for all products made by any manufacturer if the product is composed of a single material such as pure copper.

If EPA allowed manufacturers to self-certify for products composed of single materials such as pure copper, EPA would create the incentive for manufacturers to assert that products are made of a single material even if they are not. NSF has found occasional batches of copper with surface contamination of lead and other metals and failed certification testing. This means that certification is working and should be maintained. Third party certification and testing to verify that claims made are accurate is critical to protecting public health.

17. EPA requests comment on whether the requirement for a "certificate of conformity" is sufficient for self-certification.

Given the previously provided comments, a "certificate of conformity" is not sufficient to certify that pipes, fixtures and fittings meet the "lead free" requirements of the RLDWA. Only third party certification is sufficient for this purpose.

18. EPA requests comment on whether any product certification should be required.

It is essential that pipes, fixtures, and fittings be certified by a third party to ensure that they meet the “lead free” requirements of the RLDWA, and this certification must be prominently and clearly communicated on packaging labels and product markings. There is no other way for consumers to be guaranteed lead safe products that will provide safe drinking water to their families.

19. EPA requests comment on all aspects of the proposed implementation period for this proposed rule.

As stated previously, in the wake of the Flint Water Crisis, people are paying attention to lead in drinking water more than ever. Many plumbers and homeowners are replacing fixtures with the understanding that newly manufactured materials are “lead free.” The state of Michigan is buying and distributing faucets, and schools all over the country are replacing fixtures as you read these comments. Improved package labeling should be implemented as soon as practicable. Three years after the rule is finalized is too long.

20. EPA requests comments on the economic analysis for the proposed rule including EPA’s cost analysis and benefits assessment.

The costs of options that allow for self-certification and less rigorous labeling requirements must include the cost of consumers either 1) installing a product that does not meet the “lead free” requirement because the self-certification was not accurate, or 2) selecting the wrong product because the package labels or product markings were not clear with respect to the lead free status of the pipe, fitting, or fixture. While these requirements reduce the cost to manufacturers, they increase the cost to society both in terms of health effects of preventable lead exposure but also through increased or prolonged need for corrosion control treatment to treat for preventable lead release in home plumbing.

In addition, all of the options that include an exemption of pipes, fittings, and fixtures that are compatible with potable water systems should account for the cost of the time each consumer must spend studying the differing labels on apparently equivalent plumbing products to determine the appropriate product for their specific need.

The data presented in the proposed regulation for the number of kitchen faucets, kitchen sinks, and lavatory faucets produced annually (24,219,669) is an indicator for the number of additional fittings required to replace or install one of these fixtures each year. Assume the average consumer would require 30 minutes to compare product labels and certifications across the range of faucets, valves, elbows, etc. for the installation. At the federal minimum wage of \$7.25 per hour, the potable exemption option presented in this rule reflects a minimum \$87.8 million annual cost to consumers. A rule option that only allows exemptions for pipes, fittings, and fixtures that are incompatible with potable water systems would reduce the cost to consumers not only by \$87.8 million per year but also by the cost of health effects caused by preventable exposure to lead in drinking water.

Table VI.1 shows the total annualized social costs of the most stringent option of the proposed rule for manufacturers to be \$23.1-35.5 million. The annual cost to American consumers for this proposed regulation that continues to allow leaded plumbing to be sold on the same shelves as “lead free” plumbing is far larger and the health effects are irreversible.

The Northeast-Midwest Institute appreciates the opportunity to comment on this important notice. Please feel free to contact me (202-464-4008, ebetanzo@nemw.org) if you have any questions regarding these comments.

Sincerely,



Elin Betanzo
Director, Safe Drinking Water Research and Policy Program
Northeast-Midwest Institute

Water Docket

Docket No. EPA-HQ-OW-2015-0680

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About The Northeast-Midwest Institute:

The Northeast-Midwest Institute is a Washington-based nonprofit and nonpartisan research, education, and policy organization dedicated to economic vitality, environmental quality, and regional equity for Northeast and Midwest states.

References Cited

Moore, M., 2011. One third of Chinese toys contain heavy metals. *The Telegraph*. Retrieved from <http://www.telegraph.co.uk> (accessed May 9, 2017).

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U.S. House. Committee on Energy and Commerce. Assistance, Quality and Affordability Act of 2010 (*to Accompany H.R. 5320*) Including cost estimate of the Congressional Budget Office. (111 H. Rpt. 524).