

**Alliance for Healthy Homes  
Clean Water Action  
Friends of the Earth  
Lead Safe DC  
Parents for Nontoxic Alternatives  
Washington DC Chapter of the Sierra Club**

1 August 2008

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Dear Sirs,

We, the undersigned, are deeply concerned that DC WASA's purported compliance with EPA Lead and Copper Rule (LCR) federal regulations is tainted by a misguided and inappropriate sampling protocol that requires, among other things, a 10-minute remedial flush of the home plumbing lines on the eve before compliance sampling. Flushing of plumbing lines to remove soluble lead and accumulated lead sediment is well-known to temporarily decrease lead levels in water, and for this reason it is frequently mentioned as a short-term remedy to reduce human lead exposure. It is undeniable that requiring consumers to pre-flush 10 minutes will reduce lead-in-water values measured in Washington DC for DC WASA's LCR compliance samples.

With good reason, pre-flushing is not part of EPA's standard LCR monitoring requirements (40 CFR 141.86). On 7/9/08, we asked EPA Region III directly whether they support DC WASA's instruction to homeowners to pre-flush; in response, EPA Region III informed us that they are not required to approve or disapprove DC WASA's sampling protocols for LCR compliance (Appendix 1). At the same time, EPA Region III refuses to endorse DC WASA's 10-minute pre-flush. This is the second year in a row that we find ourselves in this bind. In 2007, we tried to confirm that EPA Region III had endorsed DC WASA's 45+ minute pre-flush the eve before sampling in DC public schools (DCPS), but we had no success (Appendix 2).

It is our belief that:

- a) Residents of Washington DC deserve to be protected by the same lead-in-water standard that is set by EPA's LCR federal regulations and which applies elsewhere in the United States;
- b) As the agency with primacy over the District's drinking water, EPA Region III has a responsibility to ensure that DC WASA's LCR sampling methodology is scientifically sound, and must be accountable for it;

- c) As long as DC WASA's LCR compliance data are based on a sampling protocol that requires a 10-minute flush the night before sampling (a deviation from normal-water-use protocols) the data fail to capture worst-case lead as is the intention of the LCR, and the reported 90<sup>th</sup>ile lead values may severely understate the District's current lead-in-water problem;
- d) The gaming of 90<sup>th</sup>ile lead values using this flawed protocol leaves District residents exposed to a substantial public health risk, without appropriate warnings to flush or use lead filters for their protection from unnecessary lead exposure.

In light of the fact that the LCR is the only official assessment of the safety of Washington DC's drinking water relative to lead, and DC WASA and EPA Region III's repeated assertion that DC water has been safe to drink since 2005 is based on the reported LCR 90<sup>th</sup>ile lead value, we ask EPA HQ for a clear policy statement prohibiting pre-flushing of any duration the night before sampling for lead.

## **I. Lead in the District's Drinking Water**

DC WASA claims that it has met LCR requirements via improved corrosion control since early 2005 and, as a result, most warnings about potential dangers from elevated lead in DC water, public education about the need for flushing, and distribution of lead filters ended in early 2006. Since that time, DC WASA and EPA Region III have repeatedly said that the District's water is safe to drink based on compliance with the EPA LCR action level. However, independent tests and DC WASA's own data show that in the last three and a half years, hazardous concentrations of lead have been detected at many taps across the city and call into question the integrity of the reported 90<sup>th</sup>ile lead values. Specifically:

- **University of California, Berkeley study**

In 2004 and 2005, independent researchers at UC Berkeley conducted a study that analyzed approximately 150 drinking water samples from DC homes and schools. Results from samples collected in 2005 revealed high levels of lead, despite DC WASA's assurances that DC water was once again meeting federal standards. According to the authors, "Despite reports that lead levels have fallen significantly over the past year, 63% of all homes tested during the second year of our study [2005] still contained lead levels that exceed the EPA limit. In addition, drinking water collected from a well-used fountain at an elementary school site that a local government reported as lead free contained lead concentrations greater than 5 times the EPA action limit two years in a row (Adarkwah, N. E., et al. 2005. *Investigation of Higher than Standard Lead Concentrations in Drinking Water from Washington, DC*. American Geophysical Union presentation, Fall 2005).

- **Customer service samples**

In the 2<sup>nd</sup> half of 2006, the 90<sup>th</sup>ile of DC WASA's customer service samples, which represent a random pool of homes where one would not expect to find water lead levels nearly as high as in the high-risk homes targeted by the LCR, exceeded EPA's action level for both 1<sup>st</sup> draw (16 ppb) and 2<sup>nd</sup> draw (19 ppb). Five 1<sup>st</sup> draw samples (3%) had levels above 200 ppb. DC WASA's LCR data for the same time period, which are supposed to capture the worst case, showed the 90<sup>th</sup>ile to be 12 ppb and found no 1<sup>st</sup> draw measurements above 20 ppb. This data proves that in 2006, DC WASA's first draw sampling measurements did not capture the worst case lead in the District's water.

- **LCR samples**

In 2007, 7% of 1<sup>st</sup> draw LCR samples exceeded 100 ppb. In the second half of 2007, DC WASA's 2nd draw 90<sup>th</sup>ile LCR compliance samples exceeded EPA's action level (17 ppb). Although 2<sup>nd</sup> draw samples are not counted for LCR compliance, these samples are more representative of the water District residents use for drinking and cooking and, as such, are a cause for concern.

- **Schools**

In 2006-2007, FOIA requests revealed that 77% of DC public school buildings had at least one tap with lead levels exceeding the EPA action limit of 15 ppb, and 10% of schools had at least one tap with lead levels above 700 ppb. When a piece of jewelry is found to leach an equivalent amount of

lead (i.e., over 175 ug Pb, which is 700 ppb lead in 250 mLs for water samples in schools), the *Consumer Product Safety Commission* considers fining the manufacturer and issuing a recall because of concern over acute health effects in children who might ingest the jewelry. Two taps at DCPS dispensed water with such high concentrations of lead (i.e., over 10,000 ppb) that it can literally be classified as “hazardous waste.” In 38 schools more than 20% of taps tested high for lead, and in 7 schools elevated levels of lead in water were measured in at least 60% of taps. These very high lead measurements were obtained despite a controversial 45+ minute pre-flush the night before sampling, which, as we later discovered, was dictated to DCPS by DC WASA.

In 2008, and after the expenditure of several million dollars for remedial action and installation of lead filters, independent follow-up testing by Parents for Nontoxic Alternatives and Virginia Tech revealed that in 5 of the 6 high-risk schools sampled, 11% or above of taps continue to dispense elevated levels of lead. In one school, 40.5% of taps dispensed lead above the DCPS failure criteria of 15 ppb lead in a 250 mL sample. 15% of taps measured over 100 ppb, and 2% of taps measured over 1,000 ppb. By and large, problem taps were ones that lack a lead filter. In our sampling in 2008, we did not flush the school plumbing lines before sampling the next day. While the situation at DCPS today is much improved due to the installation of lead filters, the remaining taps with high lead are similar to fixtures in many homes without lead service lines throughout Washington DC. While the current sampling results at DCPS are nothing to brag about and suggest that DC’s water continues to be corrosive, we wonder how much worse the situation would be if the Mayor had not spent several million dollars on comprehensive remediation. By extension, we are very concerned about the actual levels of lead in thousands of homes that have not received such intensive remediation.

- **Homes of children with elevated blood lead levels**

In 2007-2008 (to date), drinking water was implicated as either the only identified environmental source or a plausible contributing source of lead for 11% of the District’s children who had elevated blood lead levels and whose home tap water was analyzed (water samples were collected in only 60% of cases). Three children with lead poisoning had water as the only identified lead hazard in the home.

In July 2008, independent testing by Parents for Nontoxic Alternatives and Virginia Tech at the home of a child with lead poisoning revealed that 3 out of the 9 taps in the home dispensed excessive levels of lead. One of the three taps, which is used by the child for drinking, measured at 947 ppb for the 1<sup>st</sup> draw and 51.99 ppb for the 2<sup>nd</sup> draw. Although this home was also severely contaminated with lead-containing dust, regular consumption of the water alone could have easily caused lead poisoning (> 25 ug/dL).

## **II. The Problem with Pre-flushing**

Flushing is a **remedial measure** recommended by the EPA as a short-term solution to known lead-in-water problems. In 2007, when DC WASA instructed DCPS to pre-flush all buildings for 45+ minutes the night before sampling, much of the language they used to train “flushing volunteers” was taken word-for-word from language in EPA’s “3Ts for Reducing Lead in Drinking Water in Schools” ([www.epa.gov/OGWDW/schools/pdfs/lead/toolkit\\_leadschools\\_guide\\_3ts\\_leadschools.pdf](http://www.epa.gov/OGWDW/schools/pdfs/lead/toolkit_leadschools_guide_3ts_leadschools.pdf)). DC WASA’s flushing time the night before sampling, however, was even longer than the **remedial** flushing time recommended by EPA to temporarily reduce lead exposure for school children. In section “5.2 Interim (Short-Term) Control Measures,” the EPA manual features “Exhibit 5.1” with flushing instructions for remediation of high lead. The table below juxtaposes EPA’s language in this exhibit with DC WASA’s language in the 2007 PowerPoint presentation to volunteers. With good reason, the EPA lead-in-schools instructions do not recommend exhaustive remedial pre-flushing the night before sampling, as that would obviously hide lead problems at some taps that would occur during normal usage.

EPA flushing instructions (REMEDIAL ACTION) to control lead in water	DC WASA flushing instructions for lead-in-water sampling at DCPS
“Locate the faucet furthest away from the service line on each wing and floor of the building...”	“Locate the faucet furthest away from the service line. (This has to be done for each wing and floor of the building)”
“...open the faucets wide, and let the water run for <b>10 minutes.</b> ”	“Open the faucet and let the water run for <b>forty five (45) minutes.</b> ”
<p>“Open valves at all drinking water fountains without refrigeration units and let the water run for roughly <b>30 seconds to one minute</b>, or until cold.</p> <p>Let the water run on all refrigerated water fountains for <b>15 minutes.</b>”</p>	<p>“Open the valves on all bubblers and fountains for <b>five (5) minutes</b> and...</p> <p>“... water coolers for <b>fifteen (15) minutes.</b>”</p>
“Open all kitchen faucets (and other faucets where water will be used for drinking and/or cooking) and let the water run for <b>30 seconds to one minute</b> , or until cold.”	“Open all faucets found in kitchens, nurses offices, and any other locations where water will be used for drinking or cooking. Let the water run for <b>five (5) minutes.</b> ”

Moreover, in 2004 Dr. Marc Edwards of Virginia Tech collected data specific to Washington DC that documented the effect of pre-flushing time on lead-in-water levels at a DC home with an intact lead service line (Attachment 1). This graph illustrates what common sense tells us is obvious. Using a 10-minute flush immediately prior to the start of stagnation causes a dramatic – albeit temporary – reduction of lead levels at the tap. ***In single-family homes, the 10-minute pre-flush virtually eliminates any chance of finding lead in the first draw sample that is derived from the lead service line. According to EPA and DC WASA, lead from the service line is the key contributor to first draw lead in the city, and was the primary source of public health concern in 2004.*** In real life, since running the kitchen tap for 10 minutes every evening is something most people do not do, many first 1st draw samples without this instruction would contain significant levels of lead from the service line, representing the serious exposure that can occur from the ingestion of 1<sup>st</sup> draw water. Moreover, 1st and 2nd draw water collected under typical conditions in Washington DC can often contain particles of metallic lead that are occasionally dislodged from the service line, lead solder or lead rust, especially in homes with relatively low water usage. The potential contribution of particulate lead from the lead service line is also almost completely eliminated via exhaustive pre-flushing (essentially sweeping the plumbing clean of such particles) the eve before sampling. Dr. Edwards communicated his grave concerns (and experimental data) about the 10+ minute pre-flush on the evening before WASA’s LCR sampling to EPA Region III in March 2007.

Despite DC WASA’s and EPA Region III’s dogged resistance to reveal whether DC WASA requires pre-flushing for LCR compliance sampling (Appendix 3 and 4), we now have confirmation that DC WASA pre-flushed during the following sampling rounds:

Date	Sampling Event	Duration of Pre-Flush	Expert Comments
2004	DC public schools and apartments	10 minutes	<p>“They flushed the devil out of those schools” (anonymous consulting engineer quoted in <i>Environmental Science &amp; Technology</i> 5/31/06)</p> <p>“The survey of lead in D.C. school drinking water was unlikely to reveal both the actual previous situation to which children and teachers were really exposed, not to mention the worst-case scenario, which is the intention of the law” (anonymous scientist quoted in <i>Environmental Science &amp; Technology</i> 5/31/06)</p>
2005	LCR compliance	10 minutes	
2006	LCR compliance	10 minutes	
2007	LCR compliance	10 minutes	
March 2007	DC public schools	45 minutes (plus 5-15 minutes at each tap)	
2008	LCR compliance	10 minutes	
March 2008	homes with partial pipe replacements	10 minutes	<p>“As I have known since 2004, a 10 minute+ pre-flush has one effect and one effect only in Washington D.C.....to eliminate any chance of finding lead in the first draw sample from the lead service line.” ... “...after WASA was roundly criticized for the 10+ minute pre-flush instruction during the lead in school water sampling in 2004, which helped to hide lead hazards in DC schools for years, it would have been reasonable to expect this nonsense to stop. Instead, WASA recommended 55+ minute pre-flush for DCPS in 2007, and persists in the 10+ minute pre-flush instruction to the present day, even in a study purportedly designed to identify problems with lead leaching from the service line” (6/5/08 e-mail from Marc Edwards, Virginia Tech, to Joseph Cotruvo, DC WASA Board of Directors).</p>

DC WASA was criticized publicly by independent experts for pre-flushing in 2004 and 2007 ([http://pubs.acs.org/subscribe/journals/esthag-w/2006/may/science/rr\\_mislead.html](http://pubs.acs.org/subscribe/journals/esthag-w/2006/may/science/rr_mislead.html), <http://www.washingtonpost.com/wp-dyn/content/article/2007/04/28/AR2007042800929.html>). In 2007, DC WASA claimed adamantly that their sampling instructions for DCPS (with a 45+ minute pre-flush) had been approved by EPA Region III, something that EPA Region III later publicly denied. As the 4/28/07 *Washington Post* article reveals, when confronted about the exhaustive pre-flush of the schools, DC WASA pointed their finger to EPA Region III and EPA Region III pointed their finger to DC WASA, while DC school children were left in harm's way. The same unacceptable sequence of events is taking place right now relative to DC residents and the LCR compliance data. DC WASA told us repeatedly that EPA Region III approved their LCR sampling instructions. Here are some examples of their statements:

- 6/6/08 e-mail from the DC WASA Board to Dr. Edwards:

***“EPA has recently stated on the record that they have no difficulty with the procedures being followed and the lead compliance data that DCWASA is producing. EPA is fully aware of and allows the night-before flush in the compliance protocol. It is consistent with the requirements and the intent of the rule.”***

- 7/4/08 e-mail from the DC WASA Board to the Alliance for Healthy Homes:

***“They [DC WASA staff] will also respond to your preflush question, although, as I have said before, it is not an issue relative to the compliance determination. The Lead Copper regulation compliance testing requires at least 6 hours stagnation. WASA's compliance sampling plans are submitted to EPA and have been approved, so EPA has officially accepted the protocol that includes preflush the night before. I have also discussed it with EPA. They are definitely aware of it and they have no objection, because it meets or exceeds the requirement in the regulation.”***

- 7/8/08 e-mail from the DC WASA Board to the Alliance for Healthy Homes:

***“You will need to deal directly with EPA if you wish additional information about their acceptance and interpretation of the pre flush prior to 6 hours. Dr Jennie Saxe's statement at the May 1 hearing was to the effect that EPA accepts the LC Rule monitoring and the data that are being generated by DCWASA without equivocation. I believe that would be considered a first hand position statement from EPA.”***

Given our experience with EPA Region III and DC WASA in 2007, we asked that the DC WASA Board obtain a written statement from EPA Region III that specifically supported the 10-minute pre-flush. The DC WASA Board would not do so, so we asked EPA Region III directly for confirmation of their approval. The written communication from EPA Region III was hardly reassuring. EPA Region III explicitly denied approving DC WASA's LCR compliance pre-flush. Below are excerpts from Dr. Jennie Saxe's 7/16/08 e-mail to the Alliance for Healthy Homes and Parents for Nontoxic Alternatives that directly contradict the statements attributed to them by DC WASA:

***“My testimony presented at the May 1 DCWASA board hearing did not specifically address the issue of flushing prior to the stagnation period required prior to Lead and Copper Rule (LCR) tap sampling.” ... “The LCR does not require submission of sampling plans or instructions prior to sampling; thus, the regulations do not require EPA to approve or disapprove DCWASA's sampling plans.” ... “DCWASA has provided its sampling plans for the sampling required by 40 CFR 141.86 to EPA for review and comment. EPA has***

***not commented on the ‘flushing prior to stagnation’ portion of the sampling instructions. Although EPA has offered comment, EPA has neither ‘approved’ or ‘disapproved’ DCWASA’s sampling plans.’***

We also requested that the DC WASA Board find us an example of any other large city in the United States that instructs consumers to pre-flush for 10 minutes the night before collecting LCR compliance samples. They could not, or would not, do so. Parents for Nontoxic Alternatives then conducted its own survey of LCR sampling instructions from several large US cities. So far, we have encountered none that require customers to pre-flush for 10 minutes in order to meet the EPA LCR.

It seems unconscionable to us that EPA Region III, the agency that provides **direct oversight** of DC water, can claim that they have no obligation (or even authority) to ensure that the methods by which water samples are collected in the District yield accurate lead-in-water measurements. If Washington DC were a state, EPA Region III would have oversight of the state LCR process, and we would appeal this unacceptable situation to EPA Region III. However, since EPA Region III has direct oversight of the District water, we feel it is appropriate to direct our appeal to EPA HQ. We hope you would agree that DC WASA’s flawed sampling protocol and EPA Region III’s unwillingness to take a stance on it, leaves the District’s population uniquely unprotected by the use of an unconventional sampling instruction that can hide lead and, to our knowledge, is not used anywhere else in the United States.

### **III. Analogies between Pre-flushing and Removal of the Aerator before LCR Sampling**

In light of the fact that DC WASA’s LCR compliance data do not seem to capture the severity of the lead-in-water problems detected by independent tests (e.g., the UC Berkeley study in 2004-2005; customer service samples in 2006; DC public schools in 2008; homes of children with elevated blood lead levels in 2007 and 2008), we strongly suspect that DC WASA’s 10-minute pre-flush may be hiding serious lead-in-water problems. This same general issue of adding a new instruction to the accepted EPA sampling protocol, with a known capacity to temporarily reduce lead at the tap, using words that are neither required nor explicitly banned by EPA, was raised two years ago in relation to the removal and cleaning of aerators just prior to an LCR sampling event. After a North Carolina child was lead poisoned from water, in part, because the sampling protocol hid lead-in-water problems, in October 2006 EPA acted quickly and decisively to ban this extra instruction (Attachment 2).

We are requesting that EPA take the same decisive stance on pre-flushing. If it does not, there is nothing to prevent DC WASA – and potentially other utilities around the country – from continuing to engage in this and even more egregious pre-flushes. Where will it end? Is it acceptable for all US utilities to start requiring a 45+ minute pre-flush for LCR compliance sampling, similar to that which DC WASA used at DCPS in 2007?

DC WASA has told us on numerous occasions that pre-flushing is defensible because it is not explicitly prohibited by the LCR. In the words of the Chair of the DC WASA Board’s ad hoc Water Quality Committee:

***“By definition, collection of a 1st draw sample after at least 6 hours of stagnation meets or exceeds the regulatory requirement. Clearly a pre flush prior to 6 hours stagnation is not excluded by the rule” (7/8/08 e-mail to the Alliance for Healthy Homes).***

We find this argument to be specious. For example, we also do not see language in the LCR that says a utility may not truck in water to fill consumers’ pipes with a highly non-corrosive lead-free water containing 5 mg/L of orthophosphate at an unrepresentative non-corrosive pH, then sample that water the next day after 6 hours of stagnation for EPA compliance. Similarly, we do not see language in the LCR that explicitly prohibits suspending sampling during a month of the year when a utility knows it would be most likely to find lead. But we strongly believe that such actions would be unethical and would clearly violate the intent of the LCR.

The first of the LCR's four main functions is to "determine tap water levels of lead and copper at customers who have lead service lines or lead-based solder in their plumbing systems" by "measuring overall corrosivity of the treated water using **worst-case** lead and copper sample site data" ([www.epa.gov/dclead/oversight.htm](http://www.epa.gov/dclead/oversight.htm)). There is no valid argument to be made that flushing 10+ minutes the night before sampling in every single home, which virtually wipes out all contributions of lead from the lead service line in the first draw sample the next day, is "worst case."

#### **IV. Why There is an Urgent Need for an EPA Policy Statement on Pre-Flushing**

If DC WASA's 10-minute pre-flush temporarily lowers lead levels at the tap, as common sense and the evidence presented above strongly suggests, then the data that DC WASA uses to claim that DC's water is safe to drink is in substantial doubt. We know that lead-contaminated water – especially at the levels we have found in DC schools and homes – can pose an acute health risk and is sometimes a major contributor to childhood lead poisoning. We can think of no defensible reason to continue to allow DC WASA – or any other water utility – to engage in aggressive remedial actions that temporarily reduce first draw lead on the night before sampling.

Dr. Saxe suggested that we submit our input on this important issue to your office for the next LCR revision phase. Although we appreciate EPA Region III's suggestion, we are aware that the revision process takes time. Given the serious public health implications and the clear analogy with decisive prior action by EPA HQ on the aerator removal and cleaning issue, we ask that the EPA Office of Ground Water and Drinking Water issue an immediate policy statement prohibiting pre-flushing of any duration the night before sampling for lead.

If you have any questions, please feel free to contact Yanna Lambrinidou at 202.997.1834 or Ralph Scott at 202.347.7610.

Sincerely,

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Lisa Swanson  
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cc. Ben Grumbles, Assistant Administrator for Water, United States Environmental Protection Agency

## Appendix 1

**Subject: response to questions**  
**Date: Wednesday, July 16, 2008 2:26 PM**  
**From: Saxe.Jennie@epamail.epa.gov**  
**To: rscott@afhh.org, pnalternatives@yahoo.com**  
**Cc: joseph.cotruvo@verizon.net**

Mr. Scott and Dr. Lambrinidou –

I apologize for the delay in response.

I'd like to provide you some clarifying information in response to your request:

- My testimony presented at the May 1 DCWASA board hearing did not specifically address the issue of flushing prior to the stagnation period required prior to Lead and Copper Rule (LCR) tap sampling.
- Post-partial lead service line replacement sampling (performed pursuant to 40 CFR 141.84(d)(1)) is not intended to assess corrosion control. The intent is to alert customers to possible elevated lead levels after construction. Flushing after construction activities is encouraged to remove particulates associated with pipe cutting.
- **The LCR does not require submission of sampling plans or instructions prior to sampling; thus, the regulations do not require EPA to approve or disapprove DCWASA's sampling plans.**
- Neither the LCR nor the LCR guidance address flushing prior to stagnation.
- DCWASA has provided its sampling plans for the sampling required by 40 CFR 141.86 to EPA for review and comment. EPA has not commented on the "flushing prior to stagnation" portion of the sampling instructions. Although EPA has offered comment, EPA has neither "approved" or "disapproved" DCWASA's sampling plans.
- EPA invites stakeholder input into potential further revisions to the LCR. Those comments are best directed to the Office of Ground Water and Drinking Water in EPA Headquarters' Office of Water.

If you have any questions, please feel free to contact me.

Sincerely,  
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## Appendix 2

**Subject:** Immediate action requested about lead in DCPS

**Date:** Friday, April 27, 2007 9:45 AM

**From:** "Yanna Lambrinidou" <pnalternatives@yahoo.com>

**To:** Johnson.Karend@epamail.epa.gov

**Cc:** Corey.Buffo@dc.gov, pschwartz@cleanwater.org, linda.singer@dc.gov, adrian.fenty@dc.gov, jim@grahamwone.com, afellows@cleanwater.org, lnurnb@wamu.org, leonnicg@washpost.com, rrenner@nasw.org, jmcclhatton@washingtontimes.com, victoriasolomon@currentnewspapers.com, haynesd@washpost.com, pnalternatives@yahoo.com, satuhw@yahoo.com, mollyrauch@hotmail.com, kathleensong@yahoo.com, hannahstebbins@yahoo.com, christopher.vanarsdale@verizon.net, thomas.walker47@verizon.net, edwardsm@vt.edu, Blette.Veronica@epamail.epa.gov, Kempic.Jeffrey@epamail.epa.gov, Dougherty.Cynthia@epa.gov, Dare.Larry@epamail.epa.gov, Robert.bobb@k12.dc.us, Paul.Taylor@k12.dc.us, clifford.janey@k12.dc.us, cmabeus@dcexaminer.com, dwysham@seen.org, bmyers@dcexaminer.com, aaron.prichard@mail.house.gov, mcheg@dccouncil.us, elliot.doomes@mail.house.gov, ehmartel@imap.mail.rcn.net, mfiil@fwwatch.org, cweiss@foe.org, kbrown@dccouncil.us, sgonzalez@chej.org... more

Dear Ms. Johnson,

We, the undersigned, have joined together in our grave concern for the health and welfare of school children in the District of Columbia.

While we understand your position that EPA does not have legal jurisdiction over schools served by public water systems, it is increasingly unclear based on your responses whether you share the view that we are all ethically obligated to ensure the provision of safe water to school children in the District of Columbia.

Although we are committed to maintaining cordial and productive communications with all relevant parties in this issue, we must inform you that many of us were outraged by your response of April 9th. Instead of declining to comment or emphasizing why you lack jurisdiction, EPA Region III should be using its position and authority, as it did in Philadelphia, to help mitigate a serious public health risk from lead in District of Columbia Public Schools (DCPS).

What Washington residents have painfully learned in the last few years is that there are sampling protocols that find lead problems when they exist and there are sampling protocols that miss lead problems when they exist. The Environmental Protection Agency (EPA) Region III approved the 2004 DCPS lead protocol, which included two additional steps (i.e., flushing the pipes 10+ minutes and removing aerators the night before sampling) that many experts thought would miss lead problems (see, [http://pubs.acs.org/subscribe/journals/esthag-w/2006/may/science/rr\\_mislead.html](http://pubs.acs.org/subscribe/journals/esthag-w/2006/may/science/rr_mislead.html)). The mis-leading results of that study were touted – under oath as “good news” – by the District of Columbia Water and Sewer Authority (WASA) before the DC City Council in 2004.

At that same Council meeting, EPA Region III testified under oath in response to direct questions by then Council member Adrian Fenty that the 2004 protocol was “consistent with” EPA national protocol. All of Washington DC, assured by EPA’s seal of approval, came away with an understanding that the lead-in-schools problem had been fairly investigated and dealt with.

Yet when a 2005 Freedom of Information Act (FOIA) request first revealed the two steps in the 2004 DCPS sampling protocol that can hide lead problems and EPA Region III was confronted about them by an Environmental Science & Technology reporter, an EPA Region III official anonymously admitted that the modifications to the 2004 sampling were made so it would not reflect lead in the water that children

were being exposed to at the time. Rather, the official stated, ***"That study was designed to look at exposure in the future, not exposure in the past"*** (see, [http://pubs.acs.org/subscribe/journals/esthag-w/2006/may/science/rr\\_mislead.html](http://pubs.acs.org/subscribe/journals/esthag-w/2006/may/science/rr_mislead.html)).

Remarkably, despite the fact that EPA Region III knew that its own interpretation of the sampling results differed markedly from WASA's "good news" declaration in 2004, we are not aware of any attempt by your agency to publicly correct WASA's misrepresentation. Please inform us if such an attempt was made and to what effect. In the end we, District residents and parents of DC school children, were never informed that the protocol EPA Region III approved in 2004 had been modified to measure our children's lead exposure "in the future." From a parent's perspective, the goal is to measure lead exposure in the here and now. Period. "Exposure in the future" is meaningless and offensive.

"The future" arrived in 2007 when yet another FOIA request revealed 2006/2007 data showing alarming levels of lead at taps in a majority of 16 sampled DCPS schools. Given the high levels of lead that were discovered after removal of the worst fixtures and installation of more lead filters in 2004, and after 2+ years of corrosion inhibitor, it seems undeniable that the 2004 protocol hid lead problems, just as the experts thought it would. It is noteworthy that the mid-2006 to early 2007 DCPS results are worse than levels of lead encountered in Philadelphia schools, site of Region III headquarters, where EPA threatened the use of emergency powers in 1999 due to the "imminent and substantial" endangerment that lead in water posed to school children.

Shockingly, it appears that our children have been drinking lead-tainted water in DC schools for three years (2004-2007) without our knowledge, in large part because of modifications to the national EPA lead-in-schools protocol that EPA Region III approved. This protocol included, in addition to 10-minute pre-flushing, the removal of aerators – a step that was disallowed by EPA headquarters in 2006 precisely because it can hide problems with lead. Information in the EPA lead-in-schools documents, Dr. Edwards' experimental data, and common sense indicate that the 45+ minute flushing of the schools the night before sampling in 2007 may also have hidden lead problems. It is disconcerting that after EPA and WASA were publicly criticized by experts for allowing a 10-minute pre-flush in 2004, WASA successfully argued to ***increase*** the 2007 pre-flush to 45+ minutes, and EPA did nothing to prevent this.

The 2007 lead-in-schools protocol, which you continue to paradoxically defend yet not defend, approve yet not approve, is more of what we saw in 2004. Your apparent insistence that water "homogeneity" – and thus pre-flushing the night before sampling – is a necessary or even desirable precondition to testing is incorrect. EPA's own lead-in-schools testing protocol includes no such requirement and school districts around the country test for lead without cleaning out their systems for 45+ minutes the night before testing. ***Water in our school fountains should test safe when children actually drink it in the mornings, not after removing aerators or pre-flushing that occurs only on the eve of lead testing.*** EPA, with primacy over the quality and safety of Washington DC water, should not have allowed the rigor of the school testing to be compromised by WASA's erroneous and misguided technical advice. EPA literature and common sense tell us that 45+ minutes of pre-cleaning the night before sampling hides lead problems. We understand that Dr. Edwards recently gave you data showing this trend clearly. We are not aware of any evidence supporting the assertion that pre-cleaning will not decrease detectable lead levels in water during sampling the next morning. We are also unaware of data to back up your statement that EPA's protocol allows for this extra step. It would seem that since your position is contrary to conventional wisdom and EPA's own literature, the burden of proof falls on you to prove that pre-cleaning does not hide problems with high lead in water and thus constitutes an acceptable pre-sampling practice.

The statement that the EPA protocol is only a "guide" that school districts may adapt to their specific needs makes sense, but only up to a point. EPA's guidance would completely lose its effectiveness if parties overseeing the sampling altered it in any way they saw fit. When modifications to the guide are so gross that they hide the very problems they are supposed to detect, EPA, at the very least, has an ethical responsibility to say so. For example, there is no explicit language in the guide saying schools should not install lead filters on the fountains the night before sampling, causing the water to test low for lead the

next morning, and then remove the filters the next afternoon. Such action would be unethical and could leave our children in harm's way. The decision to remove the aerators and to allow pre-flushing can and did have the exact same practical effect.

**We request that EPA Region III immediately recommend that DCPS test the worst case lead in school water that our students are actually drinking, so the hard work of assessing and dealing with the problem can begin. Please advise us in writing of your action plan and dates for completion of each step by Friday, May 4.** EPA Region III should enforce the true intent of rules and procedures, based on sound science, to protect our children. Do not repeat the errors of 2000-2004, when Region III acknowledged it had failed to act aggressively in overseeing and mitigating Washington DC lead-in-water problems.

As a result of the inadequate and misleading testing so far, **we intend to conduct our own verification sampling.** Specifically, we will test a representative number of the 87% of taps in DC schools presently being touted as "safe" according to the 2007 DCPS protocol. When we test, we will use the real EPA lead-in-schools protocol. We want assurance that DCPS school water tests safe in the here and now. We hope that EPA Region III will contribute to this process in a positive way, by providing sound science and advice that will help DCPS, the DC City Council, the Mayor, and DC residents seek a long-term resolution to this vexing problem.

Sincerely,

Yanna Lambrinidou  
President  
Parents for Nontoxic Alternatives  
202-997-1834

Paul Schwartz  
National Policy Coordinator  
Clean Water Action  
202-895-0420 x105

Stacey Vaeth Gonzalez  
Child Proofing our Communities Campaign Coordinator  
Center for Health, Environment and Justice  
703-237-2249 x21

Wenonah Hauter  
Executive Director  
Food & Water Watch  
202-797-6550

Erich Martel  
Social Studies Teacher  
Woodrow Wilson High School  
202-258-4750

Chris Weiss  
DC Issues Coordinator  
Friends of the Earth  
202-222-0746

### Appendix 3

I.

#### **Personal Communication between Ralph Scott, Community Projects Director, Alliance for Healthy Homes and Charles Kiley, Assistant General Manager, DCWASA**

At DC WASA's ad hoc Water Quality Committee meeting on 6/30/08, Mr. Charles Kiley, DC WASA's Assistant General Manager presented to the Board DC WASA's Jan-Jun 2008 LCR compliance data. At the end of the presentation, Mr. Scott asked if DC WASA's 2008 LCR instructions told customers to pre-flush. Dr. Cotruvo, the Chair of the meeting, responded by saying that Mr. Scott's question would be noted and answered at a later time (the question has still not been answered). At the end of the meeting, Mr. Scott approached Mr. Kiley directly with the same question. Mr. Kiley's response was something to the effect of, "I am sure you will find out sooner or later..., just like you always do."

II.

#### **E-mail Communication between Yanna Lambrinidou, President, Parents for Nontoxic Alternatives and Joseph Cotruvo, Chair, ad hoc Water Quality Committee, DC WASA Board of Directors**

**Subject: a question**

**Date: Thursday, July 24, 2008 2:32 PM**

**From: "Yanna Lambrinidou" <pnalternatives@yahoo.com>**

**To: joseph.cotruvo@verizon.net**

Dear Joe,

Could you please tell me if in its 2007 LCR compliance sampling instructions to customers, DC WASA required a 10-minute flush immediately prior to stagnation?

Thanks for your help,

Yanna

Yanna Lambrinidou PhD  
Parents for Nontoxic Alternatives  
PO Box 6283  
Washington DC 20015  
P 202.997.1834  
E yanna@nontoxicalternatives.org

•••

**From: Joseph Cotruvo <joseph.cotruvo@verizon.net>**

**Subject: Re: a question**

**To: pnalternatives@yahoo.com**

**Date: Thursday, July 24, 2008, 2:36 PM**

I don't recall when it was initiated..

Joe

Dr. Joseph A. Cotruvo

Joseph Cotruvo & Associates, LLC.  
Water, Environment, Public Health  
5015 46th Street, NW  
Washington, DC 20016  
Phone/Fax - (202) 362-3076  
email - joseph.cotruvo@verizon.net  
- josephcotruvo@yahoo.com

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**Re: a question**  
**Date: Thursday, July 24, 2008 3:02 PM**  
**From: "Yanna Lambrinidou" pnalternatives@yahoo.com**  
**To: "Joseph Cotruvo" <joseph.cotruvo@verizon.net>**

Thanks. So you only know that the 10 minute pre-flush was used for LCR compliance sampling in Jan-Jun 2008, but you don't know how far back it goes? Am I understanding you correctly?

Regards,

Yanna

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**From: Joseph Cotruvo <joseph.cotruvo@verizon.net>**  
**Subject: Re: a question**  
**To: pnalternatives@yahoo.com**  
**Date: Thursday, July 24, 2008, 3:20 PM**

It should all be in the compliance reports that they provide to EPA that includes the protocol. I assume you have received them.

Joe

Dr. Joseph A. Cotruvo  
Joseph Cotruvo & Associates, LLC.  
Water, Environment, Public Health  
5015 46th Street, NW  
Washington, DC 20016  
Phone/Fax - (202) 362-3076  
email - joseph.cotruvo@verizon.net  
- josephcotruvo@yahoo.com

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**Re: a question**  
**Date: Thursday, July 24, 2008 6:00 PM**  
**From: "Yanna Lambrinidou" <pnalternatives@yahoo.com>**  
**To: "Joseph Cotruvo" <joseph.cotruvo@verizon.net>**

Dear Joe,

I have not received the compliance reports.

All I asked for was confirmation that I understood the facts you relayed to me. Why are you now referring me to EPA for answers to simple questions about DC WASA's sampling protocol that we have been discussing together for weeks?

A water utility's sampling protocol is public information.

All the utilities I have called so far to ask for their LCR sampling protocol have e-mailed it to me within hours after my request. Ralph asked you for the 2007 and 2008 LCR sampling protocols about 3 weeks ago. We still haven't seen them. I am sure you are busy and understand that these things can take a bit of time, but now it looks like you do not intend to give a simple answer to a simple question.

I am confused.

Regards,

Yanna

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**From:** Joseph Cotruvo <joseph.cotruvo@verizon.net>  
**Subject:** Re: a question  
**To:** pnalternatives@yahoo.com  
**Date:** Thursday, July 24, 2008, 8:55 PM

Yanna,

Please don't be upset. I do not have them. Ask WASA for them.

Joe

Dr. Joseph A. Cotruvo  
Joseph Cotruvo & Associates, LLC.  
Water, Environment, Public Health  
5015 46th Street, NW  
Washington, DC 20016  
Phone/Fax - (202) 362-3076  
email - joseph.cotruvo@verizon.net  
- josephcotruvo@yahoo.com

•••

**Re:** a question  
**Date:** Friday, July 25, 2008 10:51 AM  
**From:** "Yanna Lambrinidou" <pnalternatives@yahoo.com>  
**To:** "Joseph Cotruvo" <joseph.cotruvo@verizon.net>

Joe, I am not upset. I am really confused. I was just counting on the Board for straight answers. Regards,  
Yanna

•••

**From:** Joseph Cotruvo <joseph.cotruvo@verizon.net>  
**Subject:** Re: a question  
**To:** pnalternatives@yahoo.com

**Date: Friday, July 25, 2008, 10:58 AM**

Yanna,

You know that I am straight with you. I just don't have that specific info on exactly when they started the pre-flush.. Suggest you ask WASA directly. It is certainly public info. As you know I have asked them to produce a very detailed report on the partials results. They should also be describing that kind of detail in that report.

Joe

Dr. Joseph A. Cotruvo  
Joseph Cotruvo & Associates, LLC.  
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Washington, DC 20016  
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email - joseph.cotruvo@verizon.net  
- josephcotruvo@yahoo.com

•••

**Re: a question**

**Date: Friday, July 25, 2008 11:18 AM**

**From: "Yanna Lambrinidou" <pnalternatives@yahoo.com>**

**To: "Joseph Cotruvo" <joseph.cotruvo@verizon.net>**

**Cc: "Ralph Scott" <rscott@afhh.org>**

Joe, thanks. Maybe we are miscommunicating. I apologize if that's the case. My question to you was not about when exactly DC WASA started pre-flushing (although Ralph has certainly asked you and others this before and we would still like an answer). My question to you was whether in its 2007 LCR compliance sampling instructions, DC WASA included a 10-minute pre-flush. That's all. I assume you know the answer to this question. Or do you only know that the 10-minute pre-flush was included in the 2008 LCR compliance sampling instructions? And you don't know anything about previous years? I am trying to understand... If you could give me clear answers to these questions, I would appreciate it.  
Regards, Yanna

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**From: Joseph Cotruvo <joseph.cotruvo@verizon.net>**

**Subject: Re: a question**

**To: pnalternatives@yahoo.com**

**Cc: "Ralph Scott" <rscott@afhh.org>**

**Date: Friday, July 25, 2008, 11:43 AM**

I don't know the exact date when they started before 2008. This info should be in the report that is being prepared. It is probably in the FOIA data that Ralph was to pick up last week.

Dr. Joseph A. Cotruvo  
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email - joseph.cotruvo@verizon.net  
- josephcotruvo@yahoo.com

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**Re: a question**  
**Date: Friday, July 25, 2008 11:51 AM**  
**From: "Yanna Lambrinidou" <pnalternatives@yahoo.com>**  
**To: "Joseph Cotruvo" <joseph.cotruvo@verizon.net>**  
**Cc: "Ralph Scott" <rscott@afhh.org>**

Joe, I am interested in DC WASA's LCR compliance sampling, not the 3/08 testing of homes with partial pipe replacements. So all you know is that DC WASA used a 10-minute pre-flush for their Jan-Jun 2008 LCR compliance sampling round? Is that what you're saying? Yanna

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**Re: a question**  
**Date: Friday, July 25, 2008 11:54 AM**  
**From: "Joseph Cotruvo" <joseph.cotruvo@verizon.net>**  
**To: pnalternatives@yahoo.com**  
**Cc: "Ralph Scott" <rscott@afhh.org>**

Just ask them directly so you will get the precise information.

Dr. Joseph A. Cotruvo  
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- josephcotruvo@yahoo.com

#### Appendix 4

**Re: response to questions**  
**Date: Friday, July 25, 2008 10:26 AM**  
**From: "Yanna Lambrinidou" pnalternatives@yahoo.com**  
**To: Saxe.Jennie@epamail.epa.gov**  
**Cc: "Ralph Scott" <rscott@afhh.org>**

Dr. Saxe,

Thank you.

At the urging of Dr. Cotruvo, we are writing to ask you about some specifics concerning DC WASA's 10-minute pre-flush. Can you please clarify for us the following:

When you say that "DCWASA has provided its sampling plans for the sampling required by 40 CFR 141.86 to EPA for review and comment. EPA has not commented on the "flushing prior to stagnation" portion of the sampling instructions," you are referring to DC WASA's LCR compliance sampling plans for what years?

Have DC WASA's EPA compliance sampling plans included a 10-minute pre-flush every year since 2005 (or before), or are there years/semesters that did not include this pre-flush?

We would appreciate your responses to both questions.

Thank you in advance for your help.

Regards,

Yanna Lambrinidou  
Ralph Scott

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**Re: response to questions**  
**Date: Monday, July 28, 2008 12:16 PM**  
**From: Saxe.Jennie@epamail.epa.gov**  
**To: pnalternatives@yahoo.com**  
**Cc: "Ralph Scott" <rscott@afhh.org>**

Dr. Lambrinidou and Mr. Scott -

Since DCWASA is the owner of the documents you request, I'd suggest you ask them for the documents, first.

If you've already asked or you've been unsuccessful in obtaining the documents from DCWASA, please make the request of us through the EPA Region 3 FOIA office. (Please note that we've provided similar documents to other FOIA requestors with whom you've been collaborating on lead-in-drinking water issues in the District.) Please be as specific as possible in your request. We are obligated to provide documents in our possession, but we are not obligated to create documents (summary tables, summary papers, interpretations of documents, figures, etc.) in response to your request.

Sincerely,  
Jennie Perey Saxe, Ph.D.

Environmental Scientist  
Drinking Water Branch (3WP21)  
U.S. EPA Region III  
1650 Arch Street  
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**[Note:** The only FOIA requestor we know who has obtained any DC WASA LCR compliance sampling instructions from EPA Region III is Dr. Edwards at Virginia Tech. However, with the exception of DC WASA's 8/2005 instructions, the documents EPA Region III released to Dr. Edwards do not indicate which years DC WASA's 10-minute pre-flush has been carried out and when this instruction first began. Dr. Edwards has attempted to obtain clarification from EPA Region III about this matter, but because the agency is "not obligated" to create "interpretations of documents," they have never answered his questions].