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House of Representatives

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March 17, 2004

Mr. Benjamin Grumbles
Acting Assistant Administrator for Water
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Mr. Grumbles:

We appreciated receiving your testimony at the March 5, 2004, Government Reform Committee hearing on the federal role in ensuring safe drinking water in the District of Columbia. Among other issues, the hearing explored whether the EPA regulations promulgated under the Safe Drinking Water Act to control lead in drinking water (the "Lead and Copper Rule" or the "LCR") are adequate to protect public health. In your testimony to the Committee, you indicated that EPA also has concerns about the adequacy of the lead rules in light of what has happened in the District. You stated that EPA plans to consider whether any of the requirements of the rule should be strengthened.

We commend and strongly endorse EPA's plan to examine whether the lead rule is adequate to protect public health, as required by the Safe Drinking Water Act. The current lead problems in the District demonstrate that EPA's regulations may not be sufficiently protective. We welcome the opportunity to work with EPA to identify the specific shortcomings of the rule and how it may be improved to enhance public health protections.

Inadequacies of the Lead Rule

We are concerned that the lack of an enforceable regulatory standard for lead at the tap may have delayed the response to a spike in lead levels. Weak public notification requirements may have prevented people living and working in the District from being adequately informed of the situation. We are also concerned that EPA may not have sufficient information available to determine whether similar spikes in lead levels are likely to occur, or are occurring, in other jurisdictions. This experience is also bringing to public attention new information about corrosion control, lead leaching, and the design of a lead sampling and testing program, which points to additional gaps in the rule. Many of these concerns were raised as potential problems back in 1991, when EPA adopted the Lead and Copper rule. EPA should reopen the rule to address these issues.

"Action Level" versus Standard

The Safe Drinking Water Act requires EPA to set for each contaminant in drinking water a maximum contaminant level goal (MCLG). The MCLG establishes the level at which there are no anticipated adverse health effects, including an adequate margin of safety. EPA set the MCLG for lead at zero, reflecting the view that there is no identified level of lead exposure without anticipated health effects. EPA must also set an enforceable maximum contaminant level (MCL) that is as close to the MCLG as feasible, unless it is not economically or technologically feasible to determine the level of the contaminant. In that case, EPA may establish treatment techniques to protect the public health.

In the case of lead, EPA established treatment techniques in lieu of an MCL. EPA set an "action level" for lead of 15 parts per billion (ppb).[1] Under the regulations, the action level is exceeded if lead levels are higher than 15 ppb in over 10 percent of tap water samples taken. An MCL is enforceable – if drinking water exceeds the MCL, EPA, the state, and citizens can go to court to force the water system to take corrective action. An exceedence of the lead action level, however, simply triggers other regulatory requirements. The water system must increase monitoring, notify the public, and replace lead service lines. EPA or the state can take enforcement action against the system if it fails to take one of these required actions. Otherwise, EPA would need to invoke emergency authority to compel a water system to reduce lead levels in drinking water.

In the District, WASA reported in August 2002 that it had exceeded the lead action level. This triggered requirements to replace or test lead service lines, notify the public, and increase the frequency of monitoring. But it failed to trigger any immediate or enforceable requirement to provide safe drinking water to people living and working in the District. It appears that very little action was taken by WASA, the Corps, or EPA for months after this exceedence. Had an MCL been in place, EPA and citizens could have forced swifter and more effective remediation efforts, such as those underway right now.

The current regulations do not protect everyone. As long as lead levels in fewer than 10 percent of the homes tested exceed the action level, no remediation is required. EPA received monitoring results on July 9, 2001, indicating that four out of 50 samples in the District were over the action level. The current regulations required no response because these results did not meet the 10 percent trigger. WASA did not even have to address the elevated lead levels in these specific homes, although two of the samples had lead levels of over 100 ppb.

Even once the action level is exceeded, the current regulations do not necessarily provide protection for everyone. An exceedence of the action level triggers a requirement that the water system begin replacing lead service lines at a rate of 7 percent of the lines per year. But as soon as the action level is met in 90 percent of the homes tested, the water system may stop replacing the lead service lines. If lead levels remain high in the homes with the remaining lead service

[1] 40 CFR 141.80(c).

lines, a subset of the population will continue to suffer from elevated lead levels in their drinking water, with no available recourse against the water system.

The regulations do not establish any ceiling on how high lead levels can be. Under the current regulatory approach, a water system is not required to rapidly replace lead service lines for the specific homes with extraordinarily high lead levels. Nor is a water system required by law, absent an EPA emergency order, to provide alternative water supplies, even in a situation where public health authorities advise people not to drink the water.

In the District, at least 157 homes to date are known to have lead levels above 300 ppb. As most homes have not yet been tested, there could be hundreds of homes in the District with lead levels above 300 ppb. Yet the regulations give WASA up to 15 years to replace lead service lines in the District, including lead service lines for these homes. To address the immediate public health concerns, EPA has threatened to exercise its emergency powers and demanded that WASA take a number of interim actions, including the provision of an alternate interim water supply to all homes with lead service lines. Also, the Mayor of the District of Columbia has directed WASA to execute the actions called for by EPA, including ordering WASA to mail filters to all households with known or suspected lead service lines. However, there has been extended confusion over exactly what WASA would commit to do regarding providing alternate interim water supplies. In addition, there are concerns about how effectively WASA will carry out the commitments it makes, if oversight by the Mayor's Office and EPA is not sustained over time.

EPA should reconsider whether it is technologically or economically feasible to establish an enforceable MCL for lead levels at the tap. EPA should seek to address the issue of variability across samples through appropriate design of the sampling and testing system to determine compliance with the lead MCL.

Absent setting an MCL for lead, EPA should revise the regulation to address each of the problems noted above. At a minimum, regardless of whether the 10 percent threshold is met, if lead levels are found above the action level, some remediation must be required, both system-wide and for the individual homes with elevated lead levels. EPA should consider requiring the water system to provide in-home certified filters and filter maintenance to people at high risk with high lead levels at the tap.

Public Notification

EPA should strengthen the requirements to notify the public when there are elevated lead levels in a jurisdiction's drinking water. EPA should also ensure that water users receive prompt, clear, and meaningful notification when test results show elevated lead levels in the tap water for a particular home.

In the District, people are especially outraged by the fact that they simply didn't know that their drinking water had high lead levels. Pregnant women and parents have discovered that their infants and young children have been endangered. Yet they could have taken preventative

measures had they known of the risk. It appears that WASA did not comply with the notification requirements spelled out in the EPA regulations. But even if WASA had complied, the notice required by the regulations may well have been insufficient to give people a sense of urgency about the problem and the need to take action.

EPA should modify the notification requirements in several key respects. The notice must immediately convey to people that there is a problem that presents a risk to their health and the health of their children. Absent such an understanding, most people are unlikely to read further. The statement required by the current regulation, "some homes in the community have lead levels above the EPA action level," patently fails to inform people that there is a present health risk.[2]

The discussion of the health risks from lead should accurately convey the current scientific understanding. It should inform people that EPA's health-based standard for lead is zero because any exposure to lead in drinking water could cause adverse health effects. It should state that lead is highly toxic and a probable human carcinogen. The notice should make clear that lead exposure not only slows a child's normal mental development, but also appears to cause irreversible damage. EPA should remove the reference to "amounts of lead that won't hurt adults," as there is no known safe threshold for lead exposure.[3]

In response to the inadequate notifications issued by WASA, EPA Region III has now stated that it will review future notifications to determine their adequacy before WASA sends them out. The regulations should require the state (or EPA where EPA administers the drinking water program) to preapprove notifications. However, this preapproval requirement should not be allowed to delay notifications in the event of the state's failure to act.

The regulations should also ensure that notification of elevated lead levels is sent to all households, not just those receiving water bills. In many apartments and rental units, individual tenants are not billed directly for their water use. In communities with substantial numbers of non-English speakers, the regulations should require public notice to be provided in the relevant language(s).

In addition, the regulations should establish requirements for promptly (within a few weeks) notifying individuals when test results show elevated lead levels in the tap water for a particular home. This notice should include prominent language explaining the significance of the specific test results, and it should state that those lead levels present a health risk.

To improve the current guidelines in the public notification requirements, EPA should re-examine the recommended flushing time to reduce lead in drinking water. The regulations currently contain a recommendation for customers to run water from taps that have not been used for six hours or more until the water gets noticeably cold, usually for 15-30 seconds. However, some recent data have shown that lead levels may rise after one minute of flushing. WASA's

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[2] *See* 40 CFR 141.85(a).

[3] *See* 40 CFR 141.85(a)(1)(ii).

Deputy General Manager Michael Marcotte said "We gave people a prescription from the EPA that said run taps for a minute and everything will be good. But quite possibly, if you follow that prescription, you will trade lower-lead water for higher-lead water. And we shouldn't do that." WASA and EPA are now recommending that customers with lead service lines in the District flush their taps for 10 minutes before drinking the water. To make sure consumers get accurate information, EPA should address the recommended flushing time in the notification requirements.

Corrosion Control

We are particularly concerned about the way that EPA addresses changes in water treatment that could have adverse impacts on corrosion control. It appears increasingly likely that WASA's change to the use of chloramines to address the presence of carcinogenic disinfectant byproducts has had an adverse impact on the corrosion control program for the District's water supply. While the science may have been clear that chloramines would reduce the presence of disinfectant byproducts, it appears that WASA elected to rely mainly on a limited testing program after the change to detect the effect of the change on corrosion control.

Current regulations provide that within 60 days of a change in water treatment, the water system must notify the state. The regulations say that where state approval of the treatment change is not required, "water systems are encouraged to provide the notification to the State beforehand to minimize the risk the treatment change . . . will adversely affect optimal corrosion control."[4] The Corps notified EPA of the change in water treatment in the District in advance, and the Corps conducted some follow-up monitoring at the treatment plant. Apparently, neither EPA nor the Corps conducted a thorough review of the corrosion control plan in light of the treatment change. Evidence now suggests that the change in treatment and failure to re-optimize corrosion control may be a cause of the spike in lead levels in the District.

This procedure does not appear to allow full consideration of the risks and consequences of such a change. EPA should consider revising the regulations to require that if a drinking water treatment method is changed, the water system and the state or EPA must review the applicable corrosion control plan to ensure that it remains effective in light of the change. EPA should also consider requiring a water system to notify the state (or EPA) in advance of the change in treatment. At a minimum, a water system should have fully evaluated the risks of any changes in water treatment before making any changes. In a situation where there are persistent high lead levels even after approval of a corrosion control plan, the regulations should require a third party review of the corrosion control plan.

Partial Replacement of Lead Service Lines

A lead service line extends from the water main to the building served, generally crossing both public property and private property. Typically, a portion of a service line is owned by the water system and a portion is owned by the property owner. When the action level is exceeded, the water system must replace 7 percent of the lead service lines per year. However, the water

[4] 40 CFR 141.90(a)(3).

system may count a lead service line as replaced under this requirement if the water system replaces only the portion of a service line that it owns, which is known as "partial replacement." As property owners often are unwilling to incur the expense of replacing the remainder of the line, commonly the water system's portion of a lead service line is replaced, but the privately-owned portion is not.

Recent experience in the District indicates that replacing only the WASA-owned portion of a lead service line may actually increase lead levels at the tap. EPA should research the effect of partial replacement of lead service lines and modify the regulations to address this issue. If EPA confirms that partial replacement commonly causes a long term increase in lead levels or fails to produce any reduction in lead levels, it would make no sense to encourage such partial lead service line replacements. EPA should consider revising the regulation to require the water system to replace all of the service line under the water system's control or to provide other incentives for full lead service line replacement.

Monitoring Protocols

EPA's monitoring protocols specify how a water system must test for lead levels in the tap water.[5] For large systems, the regulations require either 50 or 100 samples to be collected every six months, annually, or every three years, depending upon the status of corrosion control efforts and previous test results. Half of the samples are to be taken from houses with lead service lines, and the other half from houses with lead pipes or lead solder. Generally, all of the samples must be "first draw" samples, which test water that has been standing in the tap and home plumbing.

The situation in the District raises substantial questions about the adequacy of EPA's monitoring and sampling protocols. Specifically, had WASA been required to monitor more broadly and more frequently, the problem and its severity would have been revealed much sooner. In fact, the most illuminating test results were obtained only because WASA selected the option of using expanded testing in lieu of replacing lead service lines. In addition, contrary to expectation, the District has been seeing higher lead levels in "second draw" samples, after taps have been flushed for a period. Sampling done according to EPA's requirements generally would not reveal such higher lead levels. In addition, preliminary test results from Arlington County found elevated lead levels at new residences, which are generally not tested at all under the EPA monitoring protocol.

We urge EPA to further examine these issues related to monitoring and to revise the monitoring requirements as warranted. At a minimum, EPA should require increased monitoring at the tap after a change in corrosion treatment processes. EPA should also increase the number and frequency of sampling, and include some sampling of new homes.

State Reporting and National Data Collection

[5] *See* 40 CFR 141.86.

At this point, it is not clear how widespread the problem that the District is experiencing is in other jurisdictions. States are required to report to EPA their jurisdictions' 90th percentile lead monitoring results, although as discussed above, there are concerns about the adequacy of the monitoring requirements. States generally are not required to report drinking water treatment methods, corrosion control plans, or materials surveys, which indicate the extent and location of lead service lines in a jurisdiction. It is suspected that the spike in lead levels in the District may be caused in part by the use of chloramines for water treatment and the presence of lead service pipes. However, EPA does not have information to identify other jurisdictions nationwide with similar risk factors.

EPA should revise the requirements for state reporting to EPA as necessary to ensure that EPA has a comprehensive picture of national lead levels and control strategies for lead in drinking water. Specifically, EPA should consider requiring states to report their drinking water treatment methods, corrosion control plans, and the jurisdictions with extensive lead service lines.

Process for Reconsidering Rule

We would like to obtain further information about the process that EPA plans to use to determine whether to propose changes to the rule. Please explain whether and how EPA plans to gather further information, conduct research, and solicit advice from outside the agency. Please also provide your projected timetable for reexamining the rule, and for proposing and finalizing any changes.

We are pleased that EPA recognizes the importance of reexamining, in light of recent experience, whether the lead regulations under the Safe Drinking Water Act are sufficiently protective of public health. We also appreciate your willingness to engage with Congress and the public in this process. It is critical that EPA swiftly and effectively correct identified weaknesses in public health protections against lead in drinking water.

Sincerely,

Tom Davis
Chairman

Henry A. Waxman
Ranking Member

Eleanor Holmes Norton
Member of Congress