April 18, 2016

Dear Water Supply Official:

Following the high-profile situation in Flint, Michigan, the Illinois Environmental Protection Agency has identified several enhancements to public health protection as the federal Lead and Copper Rule is being implemented. Those enhancements include action items to be taken by Community Water Supplies (CWSs).

Current regulations are designed to inform water system consumers of wholesale problems in their water supply. The regulations place emphasis on optimizing the chemical properties of the distributed water to reduce its corrosiveness (such as pH or alkalinity adjustments) and thereby reduce the risk of lead contamination. Further, existing regulations promote the use of corrosion inhibitors that are added to the treated water to promote a coating on consumer plumbing thereby creating a barrier to the leaching of lead and copper from plumbing. While these measures can be effective in a large sense, they may not be effective with respect to individual properties subject to site specific conditions that increase their risk.

The Illinois EPA acknowledges the high level of compliance achieved by Illinois community water supplies (“CWS”) on this and other drinking water rules. However, it seems appropriate to identify additional actions to take to further improve public health protection.

As you know, owners and official custodians of public water supplies in Illinois are required to provide continuous operation and maintenance of public water supply facilities so that water shall be assuredly safe in quality, clean, adequate in quantity and of satisfactory mineral characteristics for ordinary domestic consumption. 35 Ill. Adm. Code 601.101.

To ensure continued compliance with this requirement, the Illinois EPA is requiring the following actions be taken by CWSs.

**Improved Sampling Instructions and Education Materials**
Attached to this letter, you will find revised sampling instructions and educational materials related to Lead and Copper Rule monitoring. Please note changes in instructions related to flushing practices and advice to reduce lead exposure.

**CWS ACTION:** Implement use of the updated instructions and educational materials.

**Prompt Notification of Lead Action Level Exceedances**
Current regulatory requirements for the community water supply are triggered if the 90th percentile of samples is above 15 ug/L, thereby exceeding the lead action level. The Illinois EPA
believes it is important for residents where an individual sample exceeds the lead action level to know as soon as possible of a potential lead hazard.

**CWS ACTION:** As soon as you receive a lead result above 15 ug/L, ensure the affected resident is informed of their respective lead results and are provided with appropriate consumer education information within 10 working days. Provide a contact person at the local or state health department if there are follow-up questions about reducing lead exposure and/or health effects of lead.

**Notify Residents of Water Main or Lead Service Line Repair/Replacement**
A recent study by U.S. EPA found that construction activity to repair or replace water mains may loosen lead-containing particulate that ends up in water consumed by nearby residents. Similarly, the study found that disturbed lead service lines had the highest lead levels, and there is reason to believe that lead levels can be elevated for days to weeks following repair or replacement of a lead service line, particularly PARTIAL replacement.

**CWS ACTION:** Notify residents in the block where water main repair/replacement is planned that the work may result in sediment, possibly containing lead, getting into their water. Residents should flush their lines during and after the completion of work, and should also remove/clean faucet aerator screens. Notify residents where water meter or partial lead service line replacement occurs of the steps they can take to reduce lead exposure following replacement. The length of time that lead levels may be elevated is variable (weeks, months, possibly years) so full replacement of lead service lines and lead-containing plumbing should also be recommended.

**Sample Sites and Monitoring Frequency**
Another area that merits attention under the existing regulatory framework is the characterization of the risk of lead (and copper) leaching in your water system. As you are aware, your water system has selected sample sites for routine data collection under a tiered system with defined monitoring periods. The frequency of these monitoring cycles is dependent upon the initial and subsequent monitoring results. To ensure the most accurate and up to date assessment possible, the Illinois EPA will revisit the monitoring frequencies allowed under the current regulatory framework and may increase frequencies under our other statutory authority. Illinois EPA will also audit existing monitoring locations to verify compliance with proper monitoring protocols.

**CWS ACTION:** Reevaluate your monitoring site plans and certify that the locations truly represent the “worst case” risk for lead leaching. Review the status of plumbing connections to your distribution system with respect to the categories under the federal Lead and Copper Rule.

**Operational Reviews and Follow-Up**
The Illinois EPA believes that operational concerns must be further evaluated in water systems to maximize corrosion control benefits. As such, we envision, as part of routine engineering evaluations/sanitary surveys of water systems, field engineers will begin evaluating the stability of finished water through the review of daily operational reports that demonstrate the water
quality parameter ranges are being met on a daily basis. The operation of your water supply is as important as design when it comes to maintaining water quality. Field engineers will verify that water systems are following up on all individual user results showing lead levels above 15 ug/L.

**CWS ACTION:** Follow-up on all individual user lead level results above 15 ug/L and encourage either lead service line replacement or replacement of premise plumbing that contains lead, especially if high lead results occur repeatedly at the same address. Initiation or improvement of corrosion control treatment at the water treatment plant may need to be considered.

**Consumer Complaints**
The Illinois EPA and community water supplies in Illinois have always taken consumer complaints seriously. The adverse drinking water situation that occurred in Flint, Michigan reaffirmed the need to be responsive and proactive to these types of concerns.

**CWS ACTION:** Follow-up on all consumer complaints in as timely a manner as possible. As necessary, consult with your Regional Office of the Illinois EPA for technical assistance and follow-up recommendations.

**Transparency and Materials Inventory for the LCR**
Illinois EPA uses the public facing Safe Drinking Water Information System (SDWIS), known as Drinking Water Watch, to make sample results available to the public and water system personnel, along with information regarding violations, enforcement actions, inventory and contacts. To further expand transparency related to the LCR, the Agency believes it will be beneficial to provide the public with the materials inventory your system was required to complete under the LCR. Illinois EPA is evaluating how best to proceed with posting statewide information through the use of geographical information systems.

**CWS ACTION:** Post, on your public website, the materials inventory your system was required to complete under the LCR, including the locations of lead service lines, together with any more updated inventory or map of pipe materials connected to the distribution system. If your community or water system does not have a public website, please provide the updated information to Illinois EPA such that it can be posted on the Illinois EPA website in the future.

**Additional State-Level Program Changes**
Illinois EPA has identified some future initiatives that will be implemented to address a number of the problems highlighted in Flint.

- A new form is being developed for submission with any Application for Construction Permit involving a change in source or treatment. This form will document that water stability has been evaluated prior to a change in source water or treatment.

- The Illinois EPA will require three (3) 6-month rounds of initial lead and copper monitoring following an operating permit.
• The Illinois EPA’s Bureau of Water Division of Public Water Supply’s Permit Section will begin including a special condition on all water main replacement permits that requires a notice to each service connection regarding flushing of premise plumbing to reduce lead consumption risks. The notice must also state that properties with lead service lines may experience an increase in lead concentration that could last several months and that full lead service line replacement is recommended. This condition is an enhancement to the current flushing notices that water supplies provide and is seen as an opportunity to educate consumers on the lead risks in their plumbing.

Illinois EPA will maintain contact with community water supplies on the matter of reducing the risk of lead exposure from drinking water. It is very important that we communicate as soon as possible to enlist your support in our shared mission of protecting public health. If you have particular questions about the information provided here, please contact Dave McMillan, David Cook or your appropriate Regional Office inspector.

Sincerely,

Lisa Bonnett
Director