

## FINAL DRAFT 8-16-17

### Kentucky Lead Workgroup Recommendations

#### Primary Recommendations for Kentucky Lead Workgroup Meeting on 8-16-17

#### State Agency Recommendations (KY Division of Water, KY Infrastructure Authority, KY Division of Compliance Assistance):

- 1.1 In collaboration with utilities, develop protocol and guidance for evaluation of treatment process changes under the following conditions:
  - a. a new water source is introduced (including interconnects with utilities);
  - b. the water source is changed;
  - c. the water treatment process is changed
  - d. lead sampling is near or exceeds the EPA Action Level (currently 15 ppb);
  - e. an emergency or interim supply is needed.

The protocol for treatment process or source water changes should use the guidance provided by US EPA in the report titled Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primacy Agencies and Public Water Systems, published March 2016.

*Responsible Parties: KDOW, Kentucky Rural Water, KY-TN AWWA, Drinking Water Utilities.*

- 1.2 Establish protocol and reporting requirements for utilities to use for customer requested lead samples and special lead samples.

*Responsible Parties: KDOW, with input from Drinking Water Utilities.*

- 1.3 Update the estimate of lead service lines (public and private) in Kentucky and update cost estimate for replacement.

*Responsible Parties: KDOW, Kentucky Rural Water, KY-TN AWWA, Drinking Water Utilities.*

- 1.4 Revise the criteria for prioritization of state-wide water projects to include lead service lines replacement. Include input from water industry on priority and weighting criteria.

*Responsible Parties: KDOW and Kentucky Infrastructure Authority.*

- 1.5 Develop a portfolio of funding sources for utilities to finance lead service line replacement (public and private) and lead abatement, including KIA, Rural Development, SRF funding, and State appropriations.

*Responsible Parties: Kentucky Infrastructure Authority, Rural Development with input from KDOW, with input from Drinking Water Utilities.*

- 1.6 Develop a lead training curriculum in partnership with utilities, state and local health departments, and water industry associations. The training should include corrosion control treatment, lead service line replacement and repair practices, flushing practices and customer communications.

*Responsible Parties: KDOW, Kentucky Rural Water, KY-TN AWWA, Drinking Water Utilities.*

### **Utility Recommendations:**

- 2.1 Utilities should conduct a Corrosion Control Evaluation and develop a Corrosion Control Plan for water treatment and distribution operations following the the guidance provided by US EPA in the Report on Optimal Corrosion Control Treatment Evaluation (OCCTE) Report, published in March 2016. The Corrosion Control Plan should be developed under the following conditions, when:
  - a. a new water source is introduced (including interconnects with utilities);
  - b. the water source is changed;
  - c. the water treatment process is changed (including chemical additives);
  - d. lead sampling is near or exceeds the EPA Action Level (currently 15 ppb);
  - e. an emergency or interim supply is needed.

This is a complex analysis that should be conducted by qualified water quality professionals to assure optimal water quality is achieved and regulatory compliance is maintained. The Corrosion Control Plan should be developed in coordination with Kentucky Division of Water, as recommended by EPA.

*Responsible Parties: Drinking Water Utilities with input from KDOW.*

- 2.2 Utilities should review their current lead sampling protocol and methods and adopt the EPA recommended guidelines for lead sampling.

*Responsible Parties: Drinking Water Utilities with input from KDOW.*

- 2.3 Utilities should prepare for a reduction in the Lead Action Level from 15 parts per billion (ppb) to less than 10 ppb.

*Responsible Parties: Drinking Water Utilities and KDOW.*

- 2.4 Utilities should prepare for more frequent sampling cycles and more diverse sampling locations for LCR compliance in the future.

*Responsible Parties: Drinking Utilities with input from KDOW.*

- 2.5 Utilities should adopt a policy or practice to remove lead service lines whenever exposed during excavation and communicate the discovery of any private lead plumbing to the homeowner/occupant. This should include communication to homeowners regarding responsibility for private plumbing, flushing and the associated impacts of lead from plumbing fittings and fixtures.

*Responsible Parties: Drinking Water Utilities.*

- 2.6 Utilities should proactively investigate where lead service lines are located using various methods (historical records, maps, construction plans, field surveys, excavations, home age, etc.) and add the service line information to the water distribution inventory, maps, and records (include material, age, condition, etc.).

*Responsible Parties: Drinking Water Utilities.*

- 2.7 Utilities should consider providing customers access to an on-line database of lead service line locations (public portion).

*Responsible Parties: Drinking Water Utilities.*

- 2.8 Utilities should consider adopting a long term (5-20 year) goal to replace all lead service lines, with the schedule based on local conditions and financial capability.

*Responsible Parties: Drinking Water Utilities.*

- 2.9 Utilities should make available consumer education materials on lead in drinking water in partnership with industry associations, regulators, public health officials and utilities and provide these materials to consumers through available channels

(Consumer Confidence Reports, websites, social media, bill stuffers, door hangers, etc.). The communication materials should identify the homeowner responsibility for private service lines and plumbing fixtures.

*Responsible Parties: Drinking Water Utilities in partnership with Kentucky Rural Water, KY-Tn AWWA, KDOW, State and Local Health Departments,*

- 2.10 Utilities should conduct training of field personnel in techniques to identify, locate, repair, replace lead service lines and lead-containing fittings.

*Responsible Parties: Drinking Water Utilities.*

- 2.11 Utilities should monitor state and national best practices on managing lead and after careful review, implement these practices where feasible and practical.

*Responsible Parties: Drinking Water Utilities.*

### **Industry Associations (Kentucky Rural Water, KY-TN AWWA, KY Water/Wastewater Operators Association and others)**

- 3.1 Identify key stakeholders and develop lead communication tools, web site links and templates for utilities to use in communicating with customers. Utilize existing resources from national and local partners. The materials should include information on the homeowner responsibility for private lead service lines and plumbing fixtures that may be sources of lead. Cross reference with Recommendation 2.9.

*Responsible Parties: Kentucky Rural Water, KY-TN AWWA, and Drinking Water Utilities.*

- 3.2 Develop a utility training curriculum for communication to customers/media; lead treatment (corrosion control); water sampling protocol; system assessment for lead; lead inventory; lead service line repair; lead service line replacement (public and private) and the potential source of Lead from homeowner plumbing fixtures. Cross reference RIs commendation 2.10.

*Responsible Parties: Kentucky Rural Water, KY-TN AWWA, Kentucky Water/Wastewater Operators Association, and Drinking Water Utilities.*

- 3.3 Engage stakeholders into discussion and education regarding lead in drinking water, including the public health community, medical professionals, regulatory agencies, education officials, engineering professionals, building trades and other organizations that are impacted or establish policy regarding lead in drinking water.

*Responsible Parties: Kentucky Rural Water, KY-TN AWWA, Kentucky Water/Wastewater Operators Association, and Drinking Water Utilities*

**Research and Development:**  
**(Water Research Foundation, Universities, and other research groups)**

- 4.1 Development of technology to identify buried lead service lines (non-destructive).

*Responsible Parties: Water Research Foundation, Universities and private sector market.*

- 4.2 Identify industry best practices among utilities for replacement of lead service lines (public and private) and guidance on partial lead service line replacement (public portion only).

*Responsible Parties: Water Research Foundation, Universities and private sector market.*

- 4.3 Develop a Manual of Practice for utilities to determine optimal corrosion control to minimize levels of lead in the distribution system, service lines and home plumbing

*Responsible Parties: Water Research Foundation, Universities and Drinking Water Utilities.*

- 4.4 Conduct research on the impact of lead in drinking water on human health to assist in identifying an appropriate action level for lead in drinking water.

*Responsible Parties: US EPA, Water Research Foundation, National Science Foundation, National Institute of Health, and Health Foundations Universities and Drinking Water Utilities.*

- 4.5 Evaluate the cost effectiveness of point of use (POU) and point of entry (POE) treatment for lead removal as an alternative for utilities to deploy as an alternative to treatment changes or lead service line replacement to meet the Lead Action Level (currently 15 ppb).

*Responsible Parties: EPA, Water Research Foundation, Drinking Water Utilities and private sector market.*

**Other Recommendations to Consider**  
**by the Lead Work Group in August 16, 2017**

- 1) Identify lead service line information (general or street address level) in the Kentucky Water Resource Information System (WRIS) GIS system where available.
- 2) Pursue lead disclosure requirements for homeowners selling their home, prior to closing and transfer of property, with reporting of any lead piping/plumbing to the local utility and County Health Department.
- 3) Notify the local health department when local water utilities detect lead exceeding the EPA Action Level (currently 15 ppb) of lead at schools and daycares.
- 4) Consider legislation for requiring blood lead level testing for all children at 12 months and 24 months old.
- 5) Request state funding appropriations for lead abatement in homes, including lead service lines and other lead based materials (paint, plumbing fixtures, etc.)
- 6) Create a state-wide clearing house (web portal) for information on lead in the built environment. The clearing house would be managed by a partnership across state agencies, including Kentucky Division of Water, Kentucky Health Department, Department of Housing Building and Construction.
- 7) Consider a financial assistance program for homeowners to replace private portion of lead service lines, where financial resources are available.
- 8) Develop a program for utilities to partner with public/private schools and daycares for testing, education and replacement of all lead plumbing within school facilities.
- 9) Develop a peer review and/or certification process for management of lead in drinking water, similar to the EPA Partnership for Safe Water, where utilities can voluntarily subscribe and obtain a certification of best practices for reduction of lead in drinking water.
- 10) Conduct research to determine the best sampling methods to obtain a representative sample of lead in drinking water for purposes of compliance monitoring.