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LANSING



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TO: Community Public Water Supply Owner or Operator

FROM: Eric Oswald, Director   
Drinking Water and Municipal Assistance Division

DATE: July 5, 2018

SUBJECT: Public Water Supply Lead and Copper Regulatory Changes

This letter is to advise community public water supplies of recently enacted changes to the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). These rule changes specifically address lead and copper provisions of the administrative rules.

Lead and Copper Rule (LCR) revisions focus on identifying distribution system materials and eliminating lead service lines and other lead components from public water supply distribution systems to lower the risk of lead exposure. Other provisions include measures to ensure samples are taken at sites of highest risk using sampling procedures that represent potential exposure. The lead action level will be lowered from 15 parts per billion (ppb) to 12 ppb, effective 2025. The revisions also require additional transparency, including the establishment of a Statewide Advisory Council, along with other community-specific communication groups, to encourage citizen involvement. Finally, the proposed rules require additional measures to ensure continuity of corrosion control treatment where required.

Certain provisions of the rule, such as the completion of a distribution system materials inventory and the lowering of the lead action level, have defined future implementation dates within the rule. The remaining revisions do not have specifically identified future implementation dates. The Michigan Department of Environmental Quality (MDEQ) will begin working with regulated water supplies immediately to ensure those provisions can be fully implemented by January 1, 2019. This will allow time to prepare for the rule changes, produce updated guidance materials and templates, and conduct training sessions for the MDEQ's Drinking Water and Municipal Assistance Division and public water supply staff. These efforts will ensure a smooth transition to the new regulations.

➤ For water supplies conducting lead and copper tap sampling during 2018:

Please follow previously provided monitoring schedules and instructions. As stated above, the MDEQ is developing guidance and training to ensure full implementation of new sampling requirements by January 1, 2019. Until updated materials are available, continue to sample according to previous instructions.

July 5, 2018

- For water supplies with lead service lines, make note of the following:

Partial lead service line replacement is no longer allowed, except in the case of emergency repair. When conducting service line replacement, no portion of the service line consisting of lead, or galvanized piping if connected to lead, may remain in place. This applies to both private and publicly owned portions of the service line. Please review R 325.10604f(5) and (6) of the administrative rules for more details, including replacement and notification requirements. It is recommended that full lead service line replacements be conducted per American Water Works Association (AWWA) C810-17 standard, "*Replacement and Flushing of Lead Service Lines*." Also note a new service line definition (R 325.10108(e)) and an updated lead service line definition (R 325.10105(r)) are included in the revised rules. Other information regarding lead service line replacement is under development.

- For water supplies serving a population of 50,000 or more, or consecutive systems serving a population of 50,000 or more:

Water system advisory councils must be formed by water supplies meeting the above criteria. The purpose of these councils is to improve transparency in their communities by developing materials and advising the water system on public awareness/education efforts. These councils must be established within 180 days of the effective date of these rules. If your water supply meets the above criteria, please review the requirements set forth in R 325.10410(7) and begin planning for creation of your council.

Enclosed is a high-level summary of the LCR changes. The MDEQ and its partners are working to produce guidance and training materials to enable a smooth transition. More implementation details will be provided to you in the near future.

Thank you for your attention to this important matter.

Enclosure

## Lead and Copper Rule Revision Summary

Below is a summary of recent lead and copper regulatory changes in Michigan. Please note that this summary is not comprehensive. Lead and copper requirements are complex, and additional information and training is being developed to help water supplies comply with the new requirements. As stated in the enclosed memo, the Michigan Department of Environmental Quality (MDEQ) will be working with water supplies to ensure these provisions can be fully implemented by January 1, 2019 (unless otherwise noted).

### Lead Action Level

- The lead action level of 15 parts per billion (ppb) remains in effect through December 31, 2024. The new lead action level of 12 ppb will take effect January 1, 2025.
- Lead and copper 90th percentiles are now calculated using highest lead and highest copper results from each site.

### Lead and Copper Tap Sampling

- Lead and copper tap sampling pools must be reviewed, updated as necessary, and submitted to the MDEQ by January 1, 2020.
- Tier 1 and Tier 2 sample site criteria no longer includes sites with copper pipes soldered with lead and installed after 1982. Tier 3 criteria has been modified to include sites with copper pipes soldered with lead and installed before July 1988.
- Systematic flushing of a sampling site and/or aerator removal or cleaning is prohibited immediately before compliance sampling is conducted.
- A second sample, in addition to the first draw, will be required at sites served by a lead service line (details and instructions will be provided once developed). The highest lead result and the highest copper result will be used to calculate the 90th percentile.
- A supply with optimal corrosion control treatment (OCCT) cannot reduce to three year lead and copper tap monitoring unless it meets water quality parameter ranges and either of the following apply:
  - The water supply has no lead service lines OR
  - The water supply has three annual rounds of sampling with 90th percentiles less than or equal to 5 ppb for lead and 650 ppb for copper.

### Distribution System Materials Inventory (DSMI)

To ensure distribution system components and service lines are properly identified and effectively inventoried, the following requirements apply:

- A preliminary DSMI, based on available information, must be submitted to the MDEQ by January 1, 2020.
- A final DSMI must be submitted to the MDEQ by January 1, 2025, with a comprehensive updated inventory due every five years thereafter.
- Supplies with lead service lines must report to the MDEQ annually on the status of lead service line replacement efforts.
- Supplies must notify residents served by lead service lines within 30 days of determining the service line content.

### Lead Service Line Replacement

The Lead and Copper Rule previously required replacement of lead service lines at a rate of seven percent per year, only when a water supply continued to exceed the lead action level after installing corrosion control treatment. While this requirement remains in effect, lead service line replacement requirements have been expanded to include the following:

- Partial lead service line replacement is no longer allowed, except in the case of an emergency repair.
- Water supplies with lead service lines, regardless of lead action level values, must replace all lead service lines at an average rate of five percent per year, not to exceed 20 years, or in accordance with an alternate schedule incorporated into an asset management plan, and approved by the MDEQ.
- The full lead service line must be replaced at water supply expense, regardless of ownership.
- A new service line definition was added, and the lead service line definition was updated.

### Water Quality Parameter (WQP) Sampling

- WQP sampling is required for all supplies with OCCT, including small and medium supplies, and all supplies exceeding an action level.
- WQPs have been expanded to include chloride and sulfate.
- WQP monitoring can no longer be reduced to three year monitoring.
- Rules clarified to require establishment of WQP ranges in the distribution system.

### Continuity of Sources and Treatment

- Clarification that supplies purchasing water from a supply with OCCT must also maintain OCCT.
- Clarification that the MDEQ may require new or updated corrosion control studies when a supply changes source or treatment, or at any other time as appropriate.

### Enhanced Transparency

- The consumer notice of results (the results information provided to residents of sampled sites) must now include copper.
- Additional content and delivery requirements for lead public education following a lead action level exceedance.
- Additional Consumer Confidence Report (CCR) content for lead and copper reporting, and lead service line reporting, has been added.
- A statewide advisory council will be created to assist with development of public awareness campaign materials.
- Supplies serving 50,000 people or more must establish a community advisory council to assist with development of public awareness campaign materials.

# Michigan's Lead and Copper Rule

## Summary of Changes

*This document is put together in good faith by a coalition of organizations whose members are directly affected by the recent Rule change. The intent is to offer a summary of the changes as currently understood. For a final and binding interpretation of any part of the Rule, questions must be directed to the Michigan Department of Environmental Quality.*

Summary of LCR changes:

Previous version of Michigan's Lead and Copper Rule	New version of Michigan's Lead and Copper Rule	Page in Rules
Supplies not required to remove lead service lines unless Lead Action Level is exceeded after corrosion control treatment is installed.	1 year after materials inventory, service lines must be replaced at 5%/year avg, not to exceed 20 years, unless an alternate schedule in an asset management plan is approved by the department.	
	Lead service lines include services with lead "goosenecks" and galvanized lines that are or were connected to LSLs.	
	Specifically, does not allow for lining or coating of services to meet lead replacement requirements. Definition of "Service Line" is a direct connection from a distribution watermain to a living unit and is not designed to be an integral part of the network of distribution watermains.	
Definition of "Service Line" is a direct connection from a distribution watermain to a living unit and is not designed to be an integral part of the network of distribution watermains.	The new definition is specific in that it is defined as the pipe from the discharge of the corporation fitting to customer site piping or building plumbing at the first shut-off valve inside the building or 18 inches inside the building.	
	Presumes that the utility controls the entire service line unless it can demonstrate in writing that it does not.	
The previous rule does not include lead fittings or goosenecks or a definition of a lead service line	The definition of a "Lead Service Line" includes lead lines, or those containing a lead pigtail or lead gooseneck or any lead fitting that is connected to the service line or both.	
Partial lead service line replacements are allowed, leaving customer-side lead lines in place unless customer agrees to pay for their portion.	Supplies must offer to replace private portion of lead service line at supply expense.	
	If owner declines offer, no partial replacement is allowed, unless as part of an emergency repair.	
	Must provide follow-up testing within 72 hours after partial replacement.	

LCR Changes

Previous version of Michigan's Lead and Copper Rule	New version of Michigan's Lead and Copper Rule	Page in Rules
Lead Action Level is 15 parts per billion (ppb)	Lower Lead Action Level to 12 ppb beginning January 1, 2025.	
Supplies can reduce lead and copper rule sampling to every three years	Reduced monitoring is allowed under specific requirements. May be allowed if optimal corrosion control and 90th percentile lead level is below 5 ppb and copper below .65 ppm for three consecutive years.	
Supplies are responsible for communicating with customers about drinking water issues.	Create Statewide Advisory Council to generate lead public awareness campaign materials	
	Create Local Advisory Councils in larger cities (> 50,000 population) to advise on distribution of educational materials in their community	
	Adds requirements for communicating about the unpredictability of lead release, the limits of 1-time tests, the high lead content of some lead particulates, availability of certified filters and proper filter maintenance, and information about lead-free plumbing fixtures	
	Adds community centers and adult foster care facilities to "at-risk" facilities	
	Requires utilities serving more than 1,000 people rather than those serving more than 100,000 people to post information on their website	
	Consumer notice of results must now include copper	
Water supplies were required to complete a distribution system materials evaluation. Many supplies still using their original distribution system materials evaluation. Original evaluations not required to be updated or submitted to the state	Require updated distribution system materials inventories: preliminary inventory due 1/1/2020, verified inventory due 1/1/2025	
	Require inventory be submitted to the state	
	Require annual update to state on status of LSL replacement.	
	Require customers be notified if served by a LSL	
	Make service line summary information available	
	Requires update of inventory every 5 years	
Original sampling pools were designated in 1990s and not required to be submitted to the state.	Requires prioritization of lead service line replacement incorporated into asset management program	
	Sampling pools must be reviewed and/or updated based on current materials inventory, and submitted to the state by 1/1/2020	
	Emphasize sampling at sites with lead service lines, if present.	

LCR Changes

Previous version of Michigan's Lead and Copper Rule	New version of Michigan's Lead and Copper Rule	Page in Rules
All valid compliance samples used to calculate lead and copper 90 th percentile values	Only use highest result of valid compliance samples taken at a site to calculate lead and copper 90th percentile values	
Only first-draw samples after at least 6 hours stagnation time are used for compliance, potentially representing only water in the fixture and indoor plumbing.	Require second sample after 5 additional liters of water at sites served by a lead service line.	
	Does not allow systematic flushing or aerator removal or cleaning in advance of testing	
Water quality parameter sampling	Adds testing for Chloride and Sulfate	
	Adds testing for pH, alkalinity, and corrosion control inhibitor to taps in the distribution system not just at plant tap, including small and medium supplies	
Recent guidance provided on maintaining corrosion control treatment when changing sources or treatment because the Rule lacked clarity.	Clarify requirements for source water or treatment changes to ensure ongoing maintenance of optimal corrosion control treatment, including OCCT for supplies purchasing water from a supply with OCCT	
The department did not previously designate values for additional water quality control.	The department may designate values for additional water quality control parameters determined by the department.	



