

17-0930

August 18, 2017

CONSENT

PWSID: 43603648  
Municipal Community  
Manitowoc County

JENNIFER HUDON, CLERK  
CITY OF MANITOWOC  
900 QUAY STREET  
MANITOWOC, WI 54220

MR. NILAKSH KOTHARI, GENERAL MANAGER  
MANITOWOC PUBLIC UTILITIES  
1303 SOUTH 8TH STREET  
P.O. BOX 1090  
MANITOWOC, WI 54221-1090

SUBJECT: Lead Action Level Exceedance – Follow-up Required

Dear Ms. Hudon and Mr. Kothari,

The Wisconsin Department of Natural Resources (Department) has received results of lead and copper samples collected at Manitowoc Waterworks (Manitowoc) in July 2017. The 90<sup>th</sup>-percentile lead result for this round of sampling was 17 µg/L. This value is considered an *Action Level Exceedance* (ALE). An ALE occurs when a 90<sup>th</sup>-percentile value is greater than the lead and/or copper Action Level. The lead and copper Action Levels are 15 µg/L and 1300 µg/L, respectively.

Once a water system has an ALE, there are a number of follow-up actions that must be completed, including: 1) additional sampling, 2) delivery of notifications informing consumers of elevated lead in drinking water, 3) processes associated with the Corrosion Control Treatment Steps and Deadlines and 4) processes associated with Lead Service Line Replacement. Each of these steps is described in greater detail below:

**1) Additional Sampling**

Following an ALE, systems must conduct additional sampling in accordance with ss. NR 809.548 and NR 809.549, Wisconsin Administrative Code (Wis. Adm. Code). The additional sampling requirements include collecting samples from each entry point and from the distribution system to be analyzed for a series of tests called Water Quality Parameters (WQPs); samples must also be collected from each entry point to be analyzed for lead and copper. Lab slips have been provided with this letter for your submittal to the lab.

Complete the additional sampling requirements listed in a-c below. \*\*\*Please note that WQP sample collection efforts may take up to two weeks to complete given the time requirements associated with collecting TWO SETS of samples; please plan accordingly to meet the sampling deadline.

- a. Collect TWO SETS of WQP samples from 10 sites within your **distribution system**. ONE SET of samples must be collected and submitted to the lab; a SECOND SET of samples must be collected 5-14 days later and submitted to the lab. The sampling effort for BOTH sets of samples must be completed by **November 30, 2017**.

- b. Collect TWO SETS of WQP samples from each Entry Point. ONE SET of samples must be collected and submitted to the lab; a SECOND SET of samples must be collected 5-14 days later and submitted to the lab. The sampling effort for BOTH sets of samples must be completed by **November 30, 2017**.
- c. Collect a single sample from each entry point and have it analyzed for lead and copper. These samples must be collected by **December 31, 2017**

## 2) Notification Requirements

- a. *Lead Consumer Notice* – In accordance with s. NR 809.546, Wis. Adm. Code, inform consumers of the results of lead and copper testing completed at the facility within 30 days of receipt of results from the laboratory. The Department recommends that systems notify consumers of lead and copper test results within 24-hour of receiving the results from the lab.
- b. *Public Education* – In accordance with s. NR 809.546, Wis. Adm. Code, you must deliver Public Education materials to water consumers within 60-days of the end of the monitoring period when the ALE occurred (applicable monitoring period is June 1 – September 30, 2017). Public Education materials must describe the potential health effects of elevated lead in drinking water. Delivery of Public Education materials must continue until you have at least one round of monitoring data showing that the 90<sup>th</sup> percentile lead levels in your distribution are at or below the Action Level of 15 µg/L.
  - i. Deliver Public Education materials to those consuming water from your system as soon as possible, but no later than **November 30, 2017**. Follow instructions on the enclosed *Lead/Copper Public Education Program* sheets. If you have any questions on what is allowed in Public Education materials or how they need to be distributed/displayed, please contact your DNR Representative.
  - ii. Within 30 days of delivery of to the consumer, submit a report documenting the completion of the Public Education requirements. A *Verification of Public Education* form has been included with the *Lead/Copper Public Education Program* sheets to help organize your submittals. A copy of the Public Education materials you use must be included with the form. Send the materials to your DNR representative no later than **December 31, 2017; June 30, 2018, and every 6-months thereafter.**

Wendy Anderson  
wendy.anderson@wisconsin.gov  
920-662-5414

Wendy Anderson  
WDNR Green Bay Service Center  
2984 Shawano Ave  
Green Bay, WI 54313

## 3) Corrosion Control Treatment Steps and Deadlines

An ALE that occurs after Corrosion Control Treatment (CCT) has been installed may be an indication that CCT is no longer optimized. When this occurs, systems must work through processes inside of the *Corrosion Control Treatment Steps and Deadlines* in accordance with s. NR 809.542, Wis. Adm. Code. These steps outline procedures that must be followed in order to demonstrate that CCT has been optimized. Items associated with the CCT Steps are as follows:

- a. Complete a *Corrosion Control Treatment Recommendation Packet*. The packet is a worksheet to assist you in developing an understanding of what the source of the lead contamination may be in your system. The packet should also be used to communicate to the Department what Manitowoc plans to do to re-optimize CCT and reduce lead levels in drinking water. The packet must be returned to your DNR Representative noted above by **March 31, 2018**.
- b. A water supplier may cease completing the CCT Steps whenever the system completes two consecutive 6-month monitoring periods where lead and copper levels are less than or equal to their respective

**Action Levels.** A water supplier will be required to resume the CCT Steps if a subsequent ALE occurs. See additional instructions below for returning to compliance through sampling.

#### 4) **Lead Service Line Replacement**

In accordance with s. NR 809.545 (1), Wis. Adm. Code, a water supplier that fails to meet the lead Action Level after installing CCT shall replace lead service lines (LSLs); the supplier must replace at least seven (7) percent of the initial number of LSLs in its distribution system annually. Program requirements include:

- a. Submit a materials evaluation conducted in accordance with s. NR 809.547 (1) Wis. Adm. Code, identifying the initial number of both utility and privately owned LSLs (from the water main to the customer's meter) in the distribution system at the time of the Action Level Exceedance. This report is due to your DNR Representative on or before **December 31, 2017**.
- b. On or before **September 30, 2018**, provide the Department with documentation showing the number of lead service lines that were replaced between October 1, 2017 and September 30, 2018. This shall be no less than seven (7) percent of the total number of service lines identified in step 4a, above.
- c. In accordance with s. NR 809.55(5)(c), Wis. Adm. Code., provide the Department with a letter annually that includes items i-iv below. The first report shall be due on or before **September 30, 2018**.
  - i. The number of lead services lines scheduled to be replaced during the previous year of the water suppliers replacement schedule.
  - ii. The number and location of each lead service line replaced during the previous year of the water supplier's replacement schedule.
  - iii. If measured, the water lead concentration and location of each lead service line sampled, the sampling method and the date of sampling.
  - iv. The Department recommends full lead service line replacement, from the water main to the customer's meter. Research shows that partial replacement of lead service lines (utility owned portion only) causes lead levels in drinking water to temporarily increase in affected properties. **Additional requirements apply for water suppliers conducting partial lead service lines.** Please contact your DNR Representative if you plan to conduct partial LSL replacement.
- d. A water supplier may cease replacing LSLs whenever the system completes two consecutive 6-month monitoring periods where lead and copper levels are less than or equal to their respective Action Levels. The water supplier will be required to resume LSL replacement if a subsequent ALE occurs. See additional instructions below for returning to compliance through sampling.

**If you choose to conduct sampling in order to return to compliance you must:**

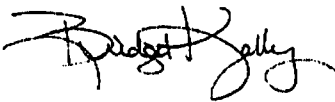
- a. Continue posting the Public Education material for lead in Drinking Water until the 90<sup>th</sup> percentile result of at least one round of compliance monitoring samples is below the lead and copper action levels. The Department recommends that you continue Public Education through the duration of the LSL Replacement Program.
- b. Collect lead and copper compliance samples from 30 designated lead/copper sample locations and have them analyzed for lead and copper at a laboratory certified for Safe Drinking Water Act analyses of lead and copper between January 1 and June 30, 2018. Section NR 809.547(2) (d), Wis. Adm. Code requires that lead and copper samples are collected from the same locations each time, or to notify the department if a site in the sampling pool becomes unavailable. Please contact Wendy

Anderson, Regional Water Supply Engineer if you need to change the locations for your lead/copper compliance samples.

- c. If the 90<sup>th</sup> percentile result of the January – July 2018 samples does not exceed the lead or copper Action Levels, collect another round of 30 lead and copper compliance samples and have them analyzed at a laboratory certified for Safe Drinking Water Act analyses of lead and copper during the next 6-month monitoring period of July 1 and December 31, 2018.
- d. Samples must be first draw, which means water must be motionless in the entire distribution system for at least 6 hours before collecting samples. You are encouraged to have processes in place for flushing your system any time the water remains stagnant for an extended period of time and prior to anyone using the water, but do not perform either fixture or facility-wide flushing prior to the sampling event. The purpose of the sampling is to determine the water quality that can be expected at any time the fixtures are available for drinking.
- e. Immediately following all lead and copper compliance sampling events, submit to DNR the *Certification of Consumer Notification of Lead/Copper Results Form*, including a copy of the *Consumer Notice of Lead and Copper Results Form* provided to your consumer after each round of compliance samples. Mail, email, or fax the forms to your District DNR Office. The office location may be found at the top of your 2017 Drinking Water Monitoring Schedule, or at: <http://dnr.wi.gov/Contact/SSbyRegion.html>.
- f. If the 90th percentile results of following sampling rounds exceed the lead and/or copper Action Levels, you will need to proceed with plans to implement a corrective action plan to address corrosion (for example: chemical addition, adjustments to chemical addition, removing sources of lead, source water and/or distribution system rehabilitation).
- g. In accordance with s. NR 809.543 (9) Wis. Adm. Code, the Department may modify a previous determination that a water supplier's CCT is optimized if it concludes that a change of course is necessary to ensure that lead and/or copper contamination is adequately controlled. In this instance, a water supplier may be subject to additional lead, copper, and WQP sampling; additional requirements inside of the CCT Steps may also be required.

The Department appreciates your willingness to provide and maintain a safe public water system. If you have any questions regarding this letter, you may contact me at (608) 266-9257.

Sincerely,



Bridget Kelly  
Public Water Supply Section  
Bureau of Drinking Water and Groundwater

Enclosures:

- 1) ~~Lab Slips~~ Already received from Wendy Anderson
- 2) Public Education Materials
- 3) Corrosion Control Treatment Recommendation Worksheet

ECopy:

Wendy Anderson, DNR – Green Bay  
Rob Michaelson, Manitowoc Waterworks  
NER DG Supervisor, DNR – NER  
Adam DeWeese, DNR – Madison

8-21-17  
cc: Nilasch K.