

Definitions & Abbreviations Used in the Water Quality Summary

EPA – US Environmental Protection Agency

MCL – Maximum Contaminant Level is the highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG – Maximum Contaminant Level Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow a margin of safety.

MRDL – Maximum Residual Disinfectant Level is the highest level of a disinfectant allowed in drinking water based on an annual average and does not apply to individual samples. There is convincing evidence that addition of a disinfectant is necessary to control microbial contaminants. Compliance with the MRDL is calculated as a Running Annual Average (RAA).

MRDLG – Maximum Residual Disinfectant Level Goal is the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

RAA – Running Annual Average is the average of the last 12 months or last 4 quarters that the facility is in operation. Disinfectants and disinfectant by-products monitored in this way are Total Trihalomethanes, Haloacetic Acids, Bromate and Chloramines.

LRAA – Locational Running Annual Average is the average of the last 12 months or last 4 quarters for each identified monitoring location in the distribution system. This differs from past requirements, which determined compliance by calculating the RAA of samples from all monitoring locations across the distribution system. Total Trihalomethanes and Haloacetic Acids are monitored in this way.

AL – Action Level

TT – Treatment Technique - a required process intended to reduce the level of a contaminant in drinking water.

NTU – Nephelometric Turbidity Units (a measure of clarity)

pCi/L – picocuries per liter (a measure of radioactivity)

ppm – parts per million or milligrams per liter (mg/L)

ppb – part per billion or micrograms per liter (µg/L)

CFU – Colony Forming Units

< – less than > – greater than

Footnotes

Monitoring Frequency Note: The state has set forth enforceable regulations on how often contaminants must be monitored and tested. Some of our data, though representative, is more than one year old.

ODEQ monitors and tests the following Inorganic Compounds and Radiological Compounds for Oklahoma City Utilities: Barium, Arsenic, Gross Alpha, Gross Beta, Radium 226 + 228 and Uranium.

Required Sampling Frequency:

Every 9 years - Fluoride, Barium and Arsenic

Every 6 years – Radionuclides

1. Fluoride: Monitored every 12 hours at each Water Treatment Plant. The highest single reading for 2018 at each plant was below the MCL and considered a safe level.

Draper – Highest single reading = 0.81 ppm. Average fluoride concentration for 2018 = 0.69 ppm

Hefner – Highest single reading = 0.94 ppm. Average fluoride concentration for 2018 = 0.63 ppm

2. Nitrate-Nitrite: Measured as the sum of Nitrate-N and Nitrite-N.

3. Disinfection By-Products Stage 2 Rule Monitoring: U.S. water utilities are required to continuously improve the quality of water delivered to customers. The Federal Environmental Protection Agency and the Oklahoma Department of Environmental Quality enforce drinking water laws and develop long-range improvement activities. In 2009,

Oklahoma City collected information on how THMs and HAAs change in the water system and is working with EPA and DEQ to decrease the numbers.

4. Total Trihalomethanes and Haloacetic Acids: The MCL is based on the RAA; therefore, the MCL does not apply to individual samples that are allowed to be higher than the MCL.

5. Bromate: The MCL is based on the RAA; therefore, the MCL does not apply to individual samples that are allowed to be higher than the MCL. Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

6. Total Organic Carbon: Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. These by-products include Trihalomethanes (THMs) and Haloacetic Acids (HAAs). Drinking water containing these by-products in excess of the MCL (Maximum Contaminant Level) may lead to adverse health effects. TOC compliance is based on the percent TOC removed, not the total amount present. The starting TOC at the Draper Treatment facility is low; therefore, the potential for formation of THMs and HAAs due to TOC is low. The THM and HAA values for the Draper Treatment facility are below the LRAA MCL, which is currently considered a safe level for these disinfection by-products. Draper Treatment facility uses an alternative method (SUVA analysis) for meeting TOC removal criteria.

7. Chlorine: Compliance with the 4.0 mg/L MRDL is based upon an annual average; therefore, the MRDL does not apply to individual samples that are allowed to be higher than the MRDL.

8. Turbidity: Turbidity is a measure of the cloudiness or clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

9. Cryptosporidium: Cryptosporidium is a microbial pathogen found in surface water throughout the United States.

All source water samples collected for the City of Oklahoma City during 2017 were non-detect for this pathogen. Cryptosporidium is part of the Long Term 2 Enhanced Surface Water Treatment Rule and testing was required for a consecutive 24 months. Our testing was completed in December of 2017. Source water averages are <0.075 cysts/L, which are considered low risk category.

10. UCMR3: EPA uses the Unregulated Contaminant Monitoring (UCM) program to collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). Every five years EPA reviews the list of contaminants, largely based on the Contaminant Candidate List. The SDWA Amendments of 1996 provide for:

- Monitoring no more than 30 contaminants every five years
- Monitoring only a representative sample of public water systems serving less than 10,000 people
- Storing analytical results in a National Contaminant Occurrence Database (NCOD).

UCMR3 is the third round of monitoring under the UCM Rule.

Overholser Water Treatment Plant was offline for the entire year of 2018. All data related to the Overholser Treatment Plant has been removed from the Consumer Confidence Report.