



Disinfectants and Disinfection Byproducts

Area-Wide Optimization Program (AWOP)

Surface Water & GWUDI Treatment

Parameters	Goal	Sample Location	Assessment Timeframe	Minimum Sampling Frequency
TOC Performance Ratio	≥ 1.0	Raw/CFE	Quarterly	Meet System Specific Monitoring Requirements
TTHM Plant Tap	≤ 30 ppb	Plant Tap	4 Quarters Running Annual Average	Quarterly
HAA5 Plant Tap	≤ 20 ppb	Plant Tap	4 Quarters Running Annual Average	Quarterly
CT	Meet CT requirements	Multiple Zones Possible	Daily	Daily

Distribution System

Parameters	Goal	Sample Location	Assessment Timeframe	Minimum Sampling Frequency
TTHM Individual Site LRAA	≤ 70 ppb	All Stage 2 Compliance Locations	4 Quarters Locational Running Annual Average	Quarterly
HAA5 Individual Site LRAA	≤ 50 ppb	All Stage 2 Compliance Locations	4 Quarters Locational Running Annual Average	Quarterly
TTHM Long Term	≤ 60 ppb	All Stage 2 Compliance Locations	8 Quarters Average Maximum Locational Running Annual Average	Quarterly
HAA5 Long Term	≤ 40 ppb	All Stage 2 Compliance Locations	8 Quarters Average Maximum Locational Running Annual Average	Quarterly
Free Chlorine (Free Chlorine Systems Only)	≥ 0.2 mg/L	Representative of the Distribution System	Daily	Daily
Monochloramine (Chloramine Systems Only)	≥ 1.5 mg/L* Monitor Free Ammonia	Representative of the Distribution System	Monthly	Monthly; (more may be needed) *Monitor Nitrate if Monochloramine is <1.50 mg/L

Treatment Plants Utilizing Chloramine

Parameters	Goal	Sample Location	Assessment Timeframe	Minimum Sampling Frequency
Free Ammonia	≤0.10 mg/L as NH ₃ -N	Plant Tap	Daily	Daily
Chlorine-to-Nitrogen or Chlorine-to-Ammonia Mass Ratio	4.5:1—5.0:1 or 3.7:1—4.1:1	Plant Tap	Daily	Daily