

REGULATORY UPDATE

Stage 2 Disinfectants/Disinfection By-Products Rule (Stage 2 DBPR)

April 9, 2007

The Stage 2 DBPR was promulgated in January of 2006 in an effort to improve drinking water quality and to provide additional protection from disinfection byproducts. The rule requires distribution system disinfection byproduct monitoring which may result in modification of existing operational practices.

BACKGROUND

The Stage 2 DBPR provides a means of limiting water system user exposure to disinfection byproducts (DBP) including trihalomethanes (THM), haloacetic acids (HAA5), chlorite and bromate. The Stage 2 DBPR affects all community water systems and non-transient non-community water systems that either add a primary or residual disinfectant other than UV light, or deliver water that has been treated with a primary or residual disinfectant other than UV light. EPA estimates that the rule will affect approximately 75,000 water systems with approximately 4% of these systems requiring treatment changes. EPA estimates the cost increase for water systems requiring treatment changes to be approximately \$5.53 per year per household.¹

DISTRIBUTION SYSTEM EVALUATION

An Initial Distribution System Evaluation (IDSE) is required for most systems to determine the areas and times of the highest DBP concentrations in the water distribution system. Areas identified by the IDSE will then be used for long-term compliance monitoring. There are four methods to achieve compliance with the IDSE requirements:

IDSE Compliance Methods	
1	Standard Monitoring
2	System Specific Study
3	40/30 Certification: systems that have all of their Stage 1 DBP samples \leq 0.040 mg/L for TTHM and \leq 0.030 mg/L for HAA5, with no monitoring violations
4	Very Small System (VSS) Waiver: systems serving < 500 people that have DBP data and Non-Transient, Non-Community Systems serving \leq 10,000 people.

EPA has developed an online program to assist utilities with IDSE compliance. The first part of the program, referred to as "The IDSE Tool", helps water systems select which of the four options is most appropriate for their water system.

The second part of the programs gives users electronic forms to assist with preparation of an IDSE plan and report. The IDSE Tool may be found at www.epa.gov/safewater/disinfection/stage2/compliance.html.

LONG TERM COMPLIANCE MONITORING

All water systems, including those excused from completing an IDSE, will be required to monitor the locational running annual average (LRAA) for each monitoring location. The LRAA is the calculated maximum contaminant level (MCL) for TTHM and HAA5 at each location. The number of monitoring locations and the monitoring frequency will be determined by the size of the system. Regardless of monitoring frequency, utilities must monitor during the month of highest DBP concentrations.

COMBINED DISTRIBUTION SYSTEMS

Combined distribution systems are subject to the compliance schedule of the largest contributor to the system. If a utility that serves less than 500 people is connected to a utility which serves 100,000 people, the smaller utility must meet the same compliance schedule as the larger utility. Smaller utilities may have to be in compliance as much as 18 months ahead of what their individual schedules would require if they are connected to a larger system.

TIMELINE

<u>System</u>	<u>Size</u>	<u>Begin Monitoring</u>
Schedule 1	100,000 or more	October-07
Schedule 2	50,000 to 99,999	April-08
Schedule 3	10,000 to 49,999	October-08
Schedule 4	Less than 10,000	April-09

To review the Standard Monitoring Compliance Date Schedules, visit

www.epa.gov/safewater/disinfection/stage2/compliance.html.

For formal training on this new regulation, please visit www.cdph.state.co.us/wq/drinkingwater/index.html

FOR MORE INFORMATION

Arber Associates is currently celebrating over 25 years of water, wastewater and water reuse engineering service. For more information on the Stage 2 DBPR or other water, wastewater and reuse topics, please contact Steve Ravel at 303-831-4700 or visit www.arber.com.

¹ Information taken from EPA Fact Sheet and www.epa.gov