

Stage 1 Disinfectants and Disinfection Byproducts Rule: Laboratory Quick Reference Guide

Overview of the Rule

Title	Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR) 63 FR 69390 - 69476, December 16, 1998, Vol. 63, No. 241
Purpose	Revisions to the Interim Enhanced Surface Water Treatment Rule (IESWTR), the Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR), and Revisions to State Primacy Requirements to Implement the Safe Drinking Water Act (SDWA) Amendments 66 FR 3770, January 16, 2001, Vol. 66, No. 29
General Description	Improve public health protection by reducing exposure to disinfection byproducts. Some disinfectants and disinfection byproducts (DBPs) have been shown to cause cancer and reproductive effects in lab animals and are suspected to cause bladder cancer and reproductive effects in humans.
General Description	The Stage 1 DBPR is the first of a staged set of rules that will reduce the allowable levels of DBPs in drinking water. The new rule establishes seven new standards and a treatment technique of enhanced coagulation or enhanced softening to further reduce DBP exposure. The rule is designed to limit capital investments and avoid major shifts in disinfection technologies until additional information is available on the occurrence and health effects of DBPs.

Critical Deadlines and Requirements

January 1, 2002	Surface water systems and ground water systems under the direct influence of surface water (GWUDI) serving ³ 10,000 people must comply with the Stage 1 DBPR requirements.
January 1, 2004	Surface water systems and GWUDI serving < 10,000, and all ground water systems must comply with the Stage 1 DBPR requirements.

Routine Monitoring Requirements

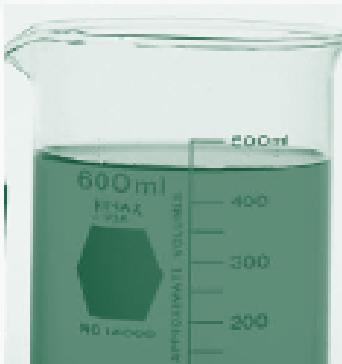
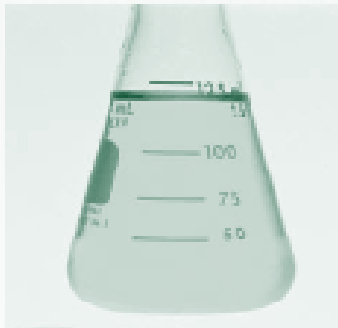
Regulated Contaminants/Disinfectants	Coverage	Monitoring Frequency
TTHM/HAA5	Surface and GWUDI serving ³ 10,000	4/plant/quarter
	Surface and GWUDI serving 500 - 9,999	1/plant/quarter
	Surface and GWUDI serving < 500	1/plant/year in month of warmest water temperature*
	Ground water serving ³ 10,000	1/plant/quarter
	Ground water serving < 10,000	1/plant/year in month of warmest water temperature*
Bromate [†]	Ozone plants	Monthly at entrance to distribution system
Chlorite	Chlorine dioxide plants	Daily at entrance to distribution system; monthly in distribution system
Chlorine/Chloramines	All systems	Same location and frequency as Total Coliform Rule sampling
Chlorine dioxide	Chlorine dioxide plants	Daily at entrance to distribution system
DBP precursors (TOC/Alkalinity/SUVA)	Conventional filtration systems	Monthly for total organic carbon and alkalinity or the SUVA alternative

* System must increase monitoring to 1 sample per plant per quarter if an MCL is exceeded.

[†] Reduced Bromate monitoring may be available based on results of optional Bromide monitoring - See Stage 1 DBPR.

Laboratory Considerations

- ▶ Obtain certification (or state approval) to perform new analyses.
- ▶ Become familiar with new monitoring requirements.
- ▶ Prepare for increased number of samples (e.g., storage, supplies, staff).
- ▶ Schedule to accommodate large number of samples, holding times, and demands on instrumentation.



For additional information on the Stage 1 DBPR

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA web site at www.epa.gov/safewater; or contact your State drinking water representative.

Additional material is available at www.epa.gov/safewater/mdbp/implement.html.

