



State of Ohio Environmental Protection Agency
Division of Drinking and Ground Waters

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Disinfectants/Disinfection Byproducts Rule Information Sheet
Information for Community and Nontransient Noncommunity Ground Water Systems

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The Stage 1 Disinfectant and Disinfection Byproducts Rule (D/DBP Rule) is a federal rule that became effective in Ohio in 2002. Community and nontransient noncommunity ground water public water systems will be regulated by the D/DBP Rule beginning January 1, 2004. This includes all ground water and purchased ground water systems that treat their water with any combination of the following disinfectants or oxidants: chlorine, sodium hypochlorite, calcium hypochlorite, chlorine dioxide, or ozone.

Chemical Limits and Testing

- Testing requirements will include TTHM and HAA5. The new Maximum Contaminant Level (MCL) for TTHM will be 0.080 mg/L. In addition, a new MCL of 0.060 mg/L will be established for HAA5.
- If you use ozone, you will be required to monitor for Bromate and comply with the MCL of 0.010 mg/L.
- If you use chlorine dioxide, you will be required to monitor for Chlorite and Chlorine Dioxide. The MCL for Chlorite will be 1.0 mg/L.
- Maximum Residual Disinfectant Levels (MRDLs), a new term with a context similar to MCL, will be established for Total Chlorine (4.0 mg/L) and Chlorine Dioxide (0.8 mg/L).

Operational Requirements

- This rule requires all systems to have a certified operator in responsible charge of the water system. Criteria and specific requirements for certified operators can be found in the operator certification rules in Ohio Administrative Code (OAC) rule 3745-7.
- Analytical methods for measuring chlorine residual will be changed to require digital equipment (i.e., no color wheels or analog test kits). The test kit must have a detection limit of at least 0.1 mg/L. Check with your district office or with Ohio EPA Laboratory Certification Unit at (614) 644-4245 for additional guidance and requirements.

Monitoring and Reporting

- The monitoring requirements for TTHM and HAA5 for your system will be one sample for each water treatment plant (Source Treatment Unit, or STU) in your system. The sample must be taken at the maximum residence time location in the distribution system (i.e., the location of the oldest water). The routine monitoring frequency will depend on system size. MCL exceedances will necessitate more frequent monitoring.
- Monitoring results may indicate the possible need for additional treatment to include best available technology for reduction of TTHM and/or HAA5. This may include granular activated carbon or other treatment recognized to reduce these contaminants.
- You will be required to develop and implement a Sample Monitoring Plan for disinfectant residual and disinfection byproducts monitoring. The plan must be developed and kept on-site for inspection during the regular sanitary survey. The plan must be available for review by January 31, 2004. Ohio EPA may also request a copy of your plan prior to your next survey.

- Compliance with the MRDL for total chlorine, including chloramines, will be based upon a running annual average, computed quarterly, of the monthly average of all samples collected under this rule. Compliance with the MRDL for chlorine dioxide will be based upon consecutive daily samples. Total chlorine monitoring will be required in the distribution system at the same time and place as total coliform monitoring. In addition, if you feed ozone or chlorine dioxide, you will be required to prepare a sample monitoring plan for bromate or chlorite, respectively.

Pertinent OAC Sections Being Revised or Developed

3745-81-01 3745-81-10 3745-81-11 3745-81-12 3745-81-23 3745-81-24 3745-81-27
3745-81-32 3745-81-70 3745-81-75 3745-81-77 3745-88-01 3745-89-03

What Should I Be Doing Now?

Your public water system should have already begun planning and budgeting for the D/DBP Rule. This includes planning and budgeting for TTHM, HAA5 and possible disinfectant residual monitoring in addition to that currently being conducted. In addition, you should begin planning for possible changes in your taste and odor treatment (if you are using chlorine) by considering other oxidants, such as potassium permanganate. If you have not evaluated your treatment processes and plant performance, you should begin doing so now. Optimization of each treatment process is key to compliance with the D/DBP Rule and maintaining simultaneous compliance with other rules.

Additional information regarding the D/DBP Rule, including the new Monthly and Quarterly Operating Reports you will be required to complete, is available on the Ohio EPA web site at www.epa.state.oh.us/ddagw/ddagwmain. You may also contact Richard Ciotola at Ohio EPA Central Office at (614) 644-2752 or by e-mail at richard.ciotola@epa.state.oh.us.