



FACT SHEET

February 2001

General Requirements of the Interim Enhanced Surface Water Treatment Rule (IESWTR)

What is the purpose of the Interim Enhanced Surface Water Treatment Rule (IESWTR)?

The primary purpose of the IESWTR is to improve control of microbial pathogens in drinking water, particularly for the protozoan *Cryptosporidium*, and to guard against significant increases in microbial risk that might otherwise occur when systems implement the Stage 1 Disinfectants/Disinfection Byproducts Rule.

Who is required to comply with the IESWTR?

Any surface water system which serves a combined population of at least 10,000 is required to comply with the IESWTR. Combined population means the total number of individuals served by the public water system as a prime supplier plus those individuals served through a consecutive water system. Consecutive water system means a public water system that receives water from one or more public water systems, excluding intermittent or emergency interconnections.

When will this rule become effective in Ohio?

All surface water systems serving a combined population of at least 10,000 shall comply with the IESWTR no later than January 1, 2002.

What are the finished water (combined filter effluent) turbidity requirements of the IESWTR?

The finished water (combined filter effluent) turbidity requirements of the IESWTR depend on the type of treatment being provided by the surface water system.

For surface water systems which use conventional or direct filtration, the following requirements apply: (This also applies to alternative treatment technologies which utilize coagulation, flocculation, sedimentation and rapid rate filtration.)

- L 95 percent of the measurements taken each month for combined filtered water shall be less than or equal to 0.3 NTU; and
- L the combined filtered water shall never exceed 1 NTU.

For surface water systems which use slow sand filtration, the filtration requirements have not changed and will remain as follows:

- L 95 percent of the measurements taken each month for combined filtered water shall be less than 1.0 NTU; and
- L the combined filtered water shall never exceed 5 NTU.

What are the requirements for removal of *Cryptosporidium*?

The IESWTR requires all surface water systems serving a combined population of greater than 10,000 (regardless of what type of treatment that is provided) to provide 99 percent (2-log) removal of *Cryptosporidium* between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at the first customer. The 2-log removal of *Cryptosporidium* requirement will be considered to be met when combined filter turbidity requirements (as listed above) are met.

What are the individual filter turbidity requirements of the IESWTR?

The IESWTR requires continuous turbidimeters to be installed on the effluent of each individual filter and requires measurements to be recorded every 15 minutes by a recording device.

What are the turbidity performance standards for individual filters?

INDIVIDUAL FILTER TURBIDITY PERFORMANCE STANDARDS	
Individual Filter Event	Action Required (Reporting items must be submitted on Form 5109A within 10 days of the following month.)
Any individual filter that has a measured turbidity level of greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart	<ul style="list-style-type: none"> L Report the filter number, the turbidity measurements, and the date(s) on which the exceedances occurred. L Complete a filter profile within 7 days of the exceedance (if the system is not able to identify an obvious reason for the abnormal filter performance) L Report that the filter profile has been produced or report the obvious reason for the exceedance.
Any individual filter that has a measured turbidity level of greater than 0.5 NTU in two consecutive measurements taken 15 minutes apart at the end of the first four hours of continuous filter operation after the filter has been backwashed or otherwise taken offline	<ul style="list-style-type: none"> L Report the filter number, the turbidity measurements, and the date(s) on which the exceedances occurred. L Complete a filter profile within 7 days of the exceedance (if the system is not able to identify an obvious reason for the abnormal filter performance) L Report that the filter profile has been produced or report the obvious reason for the exceedance
Any individual filter that has a measured turbidity level of greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of three consecutive months	<ul style="list-style-type: none"> L Report the filter number, the turbidity measurements, and the date(s) on which the exceedances occurred. L Complete an individual filter self assessment within 14 days of the exceedance. L Report that the individual filter self assessment was conducted.
Any individual filter that has a measured turbidity level of greater than 2.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of two consecutive months	<ul style="list-style-type: none"> L Report the filter number, the turbidity measurements, and the date(s) on which the exceedances occurred. L Arrange for the completion of a comprehensive performance evaluation (CPE) by the Ohio EPA or a third party no later than 30 days following the exceedance. Must contact the Ohio EPA before arranging a third party CPE. L Have the CPE completed and submitted to the Ohio EPA no later than 90 days following the exceedance.

What are the new reporting requirements of the IESWTR?

Each month, the public water system must report that continuous individual filter monitoring was conducted, must report if any individual filter events occurred and must report that the appropriate actions were taken. All of the reporting requirements are included on Form 5109A which must be completed and submitted to the appropriate district office within 10 days of the following month.

What are the disinfection profiling requirements of the IESWTR?

Any surface water system which serves a combined population of at least 10,000 and which met one of the following criteria listed below was required to begin a disinfection profile by April 1, 2000 and must complete the disinfection profile by March 31, 2001.

- L The average of four consecutive quarters of TTHM samples is greater than 0.064 mg/l.
- L The average of four consecutive quarters of HAA5 samples is greater than 0.048 mg/l.
- L The system did not collect four quarters of TTHM and HAA5 samples.

References:

Other Ohio EPA fact sheets pertaining to the IESWTR:

- L Fact sheet on requirements for conducting an Individual Filter Self Assessment as required by the Interim Enhanced Surface Water Treatment Rule
- L Fact sheet on requirements for conducting Comprehensive Performance Evaluations as required by the Interim Enhanced Surface Water Treatment Rule

A copy of these fact sheets can be requested by contacting the appropriate Ohio EPA district office drinking water unit listed below or from the following web site:

<http://www.epa.state.oh.us/ddagw/pubs.html#factsht>

USEPA Guidance Manuals pertaining to the IESWTR:

A copy of the following guidance manuals can be obtained by contacting USEPA's National Center for Environmental Publications and Information at (800) 490-9198, or the USEPA Safe Drinking Water Hotline at (800) 426-4791 or can be downloaded from the appropriate web site:

- L *Disinfection Profiling and Benchmarking Guidance Manual*. (EPA 815-R-99-013). August 1999.
www.epa.gov/safewater/mdbp/mdbptg.html#bench
- L *Guidance Manual for Compliance with the Interim Enhanced Surface Water Treatment Rule: Turbidity Provisions*. (EPA 815-R-99-010). April 1999.
www.epa.gov/safewater/mdbp/mdbptg.html#turbidity
- L *Microbial and Disinfection Byproduct Rules Simultaneous Compliance Guidance Manual*. (EPA 815-R-99-011). August 1999.
www.epa.gov/safewater/mdbp/simult.pdf

For questions or additional information regarding the requirements of the Interim Enhanced Surface Water Treatment Rule, please contact the appropriate Ohio EPA district office drinking water unit.

Northwest District Office	(419) 352-8461
Northeast District Office	(330) 963-1200
Southwest District Office	(937) 285-6357
Southeast District Office	(740) 385-8501
Central District Office	(614) 728-3778