

(2) HAA5 levels in the distribution system are at least 0.048 mg/L as an LRAA at any monitoring site. Systems must base their HAA5 LRAA calculation on data collected for compliance under subpart L of this part after [Date of

Publication of Final Rule in the **Federal Register**], or as determined by the State.

(3) The system is required to monitor for *Cryptosporidium* under § 141.701(c).

(c) In lieu of developing a new profile, systems may use the profile(s) developed under § 141.172 or §§ 141.530 through 141.536 if the

profile(s) meets the requirements of § 141.713(c).

**§ 141.712 Schedule for disinfection profiling requirements.**

(a) Systems must comply with the following schedule in the table in this paragraph:

**SCHEDULE OF REQUIRED DISINFECTION PROFILING MILESTONES<sup>1</sup>**

Activity	Date		
	Subpart H systems serving at least 10,000 people	Subpart H systems serving fewer than 10,000 people	
		Required to monitor for <i>Cryptosporidium</i>	Not required to monitor for <i>Cryptosporidium</i>
1. Report TTHM and HAA5 LRAA results to State.	NA .....	NA .....	[Date 42 Months After Date of Publication of Final Rule in the <b>Federal Register</b> ].
2. Begin disinfection profiling <sup>1,2</sup> ..	[Date 24 Months After Date of Publication of Final Rule in the <b>Federal Register</b> ].	[Date 54 Months After Date of Publication of Final Rule in the <b>Federal Register</b> ].	[Date 42 Months After Date of Publication of Final Rule in the <b>Federal Register</b> ] if required <sup>3</sup> .
3. Complete disinfection profiling based on at least one year of data.	[Date 36 Months After Date of Publication of Final Rule in the <b>Federal Register</b> ].	[Date 66 Months After Date of Publication of Final Rule in the <b>Federal Register</b> ].	[Date 54 Months After Date of Publication of Final Rule in the <b>Federal Register</b> ] if required <sup>3</sup> .

<sup>1</sup> Systems with at least 5.5 log of *Cryptosporidium* treatment in place are not required to do disinfection profiling.

<sup>2</sup> Systems may use existing operational data and profiles as described in § 141.713(c).

<sup>3</sup> Systems serving fewer than 10,000 people are not required to conduct disinfection profiling if they are not required to monitor for *Cryptosporidium* and if their TTHM and HAA5 LRAAs do not exceed the levels specified in § 141.711(b).

(b) [Reserved]

**§ 141.713 Developing a profile.**

(a) Systems required to develop disinfection profiles under § 141.711 must follow the requirements of this section. Systems must monitor at least weekly for a period of 12 consecutive months to determine the total log inactivation for *Giardia lamblia* and viruses. Systems must determine log inactivation for *Giardia lamblia* through the entire plant, based on CT<sub>99.9</sub> values in Tables 1.1 through 1.6, 2.1 and 3.1 of § 141.74(b) as applicable. Systems must determine log inactivation for viruses through the entire treatment plant based on a protocol approved by the State.

(b) Systems with a single point of disinfectant application prior to the entrance to the distribution system must conduct the monitoring in paragraphs (b)(1) through (4) of this section.

Systems with more than one point of disinfectant application must conduct the monitoring in paragraphs (b)(1) through (4) of this section for each disinfection segment. Systems must monitor the parameters necessary to determine the total inactivation ratio, using analytical methods in § 141.74(a).

(1) For systems using a disinfectant other than UV, the temperature of the disinfected water must be measured at each residual disinfectant concentration sampling point during peak hourly flow or at an alternative location approved by the State.

(2) For systems using chlorine, the pH of the disinfected water must be measured at each chlorine residual disinfectant concentration sampling point during peak hourly flow or at an alternative location approved by the State.

(3) The disinfectant contact time(s) (T) must be determined during peak hourly flow.

(4) The residual disinfectant concentration(s) (C) of the water before or at the first customer and prior to each additional point of disinfection must be measured during peak hourly flow.

(c) In lieu of conducting new monitoring under paragraph (b) of this section, systems may elect to meet the requirements of paragraphs (c)(1) or (2) of this section.

(1) Systems that have at least 12 consecutive months of existing operational data that are substantially equivalent to data collected under the provisions of paragraph (b) of this section may use these data to develop disinfection profiles as specified in this section if the system has neither made a significant change to its treatment practice nor changed sources since the data were collected. Systems using existing operational data may develop disinfection profiles for a period of up to three years.

(2) Systems may use disinfection profile(s) developed under § 141.172 or §§ 141.530 through 141.536 in lieu of developing a new profile if the system

has neither made a significant change to its treatment practice nor changed sources since the profile was developed. Systems that have not developed a virus profile under § 141.172 or §§ 141.530 through 141.536 must develop a virus profile using the same monitoring data on which the *Giardia lamblia* profile is based.

(d) Systems must calculate the total inactivation ratio for *Giardia lamblia* as specified in paragraphs (d)(1) through (3) of this section.

(1) Systems using only one point of disinfectant application may determine the total inactivation ratio for the disinfection segment based on either of the methods in paragraph (d)(1)(i) or (ii) of this section.

(i) Determine one inactivation ratio (CT<sub>calc</sub>/CT<sub>99.9</sub>) before or at the first customer during peak hourly flow.

(ii) Determine successive CT<sub>calc</sub>/CT<sub>99.9</sub> values, representing sequential inactivation ratios, between the point of disinfectant application and a point before or at the first customer during peak hourly flow. The system must calculate the total inactivation ratio by determining (CT<sub>calc</sub>/CT<sub>99.9</sub>) for each sequence and then adding the (CT<sub>calc</sub>/CT<sub>99.9</sub>) values together to determine (Σ (CT<sub>calc</sub>/CT<sub>99.9</sub>)).

(2) Systems using more than one point of disinfectant application before the first customer must determine the CT value of each disinfection segment immediately prior to the next point of