

lamblia, and virus inactivation requirements of this section and § 141.72(a) using a minimum of two disinfectants, and each disinfectant must separately achieve the total inactivation required for either *Cryptosporidium*, *Giardia lamblia*, or viruses.

(e) Following completion of the second round of source water monitoring required under § 141.702(d), unfiltered systems that meet all filtration avoidance criteria of § 141.71 must calculate the arithmetic mean of

all *Cryptosporidium* sample concentrations reported under § 141.702(d) and must meet the treatment requirements in paragraph (b)(1) or (2) of this section, as applicable, based on this concentration.

(f) Any unfiltered system that meets all filtration avoidance criteria of § 141.71 and fails to complete the monitoring requirements of §§ 141.701 through 141.707 or chooses not to monitor pursuant to § 141.701(g) must meet the treatment requirements of

paragraph (b)(2) of this section by the date applicable under § 141.701(e).

§ 141.722 Microbial toolbox options for meeting *Cryptosporidium* treatment requirements.

(a) To meet the additional *Cryptosporidium* treatment requirements of §§ 141.720 and 141.721, systems must use microbial toolbox options listed in this following table that are designed, implemented, and operated in accordance with the requirements of this subpart.

MICROBIAL TOOLBOX: OPTIONS, CREDITS AND CRITERIA

Toolbox option	Proposed <i>Cryptosporidium</i> treatment credit with design and implementation criteria
Source Toolbox Components	
(1) Watershed control program	0.5 log credit for State approved program comprising EPA specified elements. Specific criteria are in § 141.725(a).
(2) Alternative source/intake management.	Bin classification based on concurrent <i>Cryptosporidium</i> monitoring. No presumptive credit. Specific criteria are in § 141.725(b).
Pre-Filtration Toolbox Components	
(3) Presedimentation basin with coagulation.	0.5 log credit for new basins with continuous operation and coagulant addition. No presumptive credit for basins existing when monitoring is required under § 141.702. Specific criteria are in § 141.726(a).
(4) Two-stage lime softening	0.5 log credit for two-stage softening with coagulant addition. Specific criteria are in § 141.726(b).
(5) Bank filtration	0.5 log credit for 25 foot setback; 1.0 log credit for 50 foot setback. No presumptive credit for bank filtration existing when monitoring is required under § 141.704(d)(1). Specific criteria are in § 141.726(c).
Treatment Performance Toolbox Components	
(6) Combined filter performance	0.5 log credit for combined filter effluent turbidity ≤ 0.15 NTU in 95% of samples each month. Specific criteria are in § 141.727(a).
(7) Individual filter performance	1.0 log credit for individual filter effluent turbidity ≤ 0.1 NTU in 95% of daily maximum samples each month and no filter > 0.3 NTU in two consecutive measurements. Specific criteria are in § 141.727(b).
(8) Demonstration of performance ..	Credit based on a demonstration to the State through State approved protocol. Specific criteria are in § 141.727(c).
Additional Filtration Toolbox Components	
(9) Bag filters	1 log credit with demonstration of at least 2 log removal efficiency in challenge test; Specific criteria are in § 141.728(a).
(10) Cartridge filters	2 log credit with demonstration of at least 3 log removal efficiency in challenge test; Specific criteria are in § 141.728(a).
(11) Membrane filtration	Log removal credit up to the lower value of the removal efficiency demonstrated during the challenge test or verified by the direct integrity test applied to the system. Specific criteria are in § 141.728(b).
(12) Second stage filtration	0.5 log credit for a second separate filtration stage in treatment process following coagulation. Specific criteria are in § 141.728(c).
(13) Slow sand filters	2.5 log credit for second separate filtration process. Specific criteria are in § 141.728(d).
Inactivation Toolbox Components	
(14) Chlorine dioxide	Log credit based on demonstration of compliance with CT table. Specific criteria are in § 141.729(b).
(15) Ozone	Log credit based on demonstration of compliance with CT table. Specific criteria are in § 141.729(c).
(16) UV	Log credit based on demonstration of compliance with UV dose table. Specific criteria are in § 141.729(d).

(b) Failure to comply with the requirements of this section in accordance with the schedule in § 141.701(e) is a treatment technique violation.

§ 141.723 [Reserved]

§ 141.724 Requirements for uncovered finished water storage facilities.

(a) Systems using uncovered finished water storage facilities must comply

with the conditions of one of the paragraphs (a)(1) through (3) of this section for each facility no later than the date specified in § 141.701(h).

(1) Systems must cover any uncovered finished water storage facility.

(2) Systems must treat the discharge from the uncovered finished water storage facility to the distribution system to achieve at least 4 log virus

inactivation using a protocol approved by the State.

(3) Systems must have a State-approved risk mitigation plan for the uncovered finished water storage facility that addresses physical access and site security, surface water runoff, animal and bird waste, and ongoing water quality assessment, and includes a schedule for plan implementation. Systems must implement the risk