

Environmental Protection Agency

§ 142.65

EFFECTIVE DATE NOTE: At 69 FR 38857, June 29, 2004, §142.62 was amended by removing the citation “103.35” and adding in its place “165.110”, effective July 29, 2004.

§ 142.63 Variances and exemptions from the maximum contaminant level for total coliforms.

(a) No variances or exemptions from the maximum contaminant level in §141.63 of this chapter are permitted.

(b) EPA has stayed the effective date of this section relating to the total coliform MCL of §141.63(a) of this chapter for systems that demonstrate to the State that the violation of the total coliform MCL is due to a persistent growth of total coliforms in the distribution system rather than fecal or pathogenic contamination, a treatment lapse or deficiency, or a problem in the operation or maintenance of the distribution system.

[54 FR 27568, June 29, 1989, as amended at 56 FR 1557, Jan. 15, 1991]

§ 142.64 Variances and exemptions from the requirements of part 141, subpart H—Filtration and Disinfection.

(a) No variances from the requirements in part 141, subpart H are permitted.

(b) No exemptions from the requirements in §141.72 (a)(3) and (b)(2) to provide disinfection are permitted.

[54 FR 27540, June 29, 1989]

§ 142.65 Variances and exemptions from the maximum contaminant levels for radionuclides.

(a)(1) Variances and exemptions from the maximum contaminant levels for

combined radium-226 and radium-228, uranium, gross alpha particle activity (excluding Radon and Uranium), and beta particle and photon radioactivity.

(i) The Administrator, pursuant to section 1415(a)(1)(A) of the Act, hereby identifies the following as the best available technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for the radionuclides listed in §141.66(b), (c), (d), and (e) of this chapter, for the purposes of issuing variances and exemptions, as shown in Table A to this paragraph.

TABLE A—BAT FOR RADIONUCLIDES LISTED IN § 141.66

Contaminant	BAT
Combined radium-226 and radium-228.	Ion exchange, reverse osmosis, lime softening.
Uranium	Ion exchange, reverse osmosis, lime softening, coagulation/filtration.
Gross alpha particle activity (excluding radon and uranium).	Reverse osmosis.
Beta particle and photon radioactivity.	Ion exchange, reverse osmosis.

(ii) In addition, the Administrator hereby identifies the following as the best available technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for the radionuclides listed in §141.66(b), (c), (d), and (e) of this chapter, for the purposes of issuing variances and exemptions to small drinking water systems, defined here as those serving 10,000 persons or fewer, as shown in Table C to this paragraph.

TABLE B—LIST OF SMALL SYSTEMS COMPLIANCE TECHNOLOGIES FOR RADIONUCLIDES AND LIMITATIONS TO USE

Unit technologies	Limitations (see footnotes)	Operator skill level required ¹	Raw water quality range & considerations ¹
1. Ion exchange (IE)	(a)	Intermediate	All ground waters.
2. Point of use (POU ²) IE	(b)	Basic	All ground waters.
3. Reverse osmosis (RO)	(c)	Advanced	Surface waters usually require pre-filtration.
4. POU ² RO	(b)	Basic	Surface waters usually require pre-filtration.
5. Lime softening	(d)	Advanced	All waters.
6. Green sand filtration	(e)	Basic.	
7. Co-precipitation with barium sulfate ...	(f)	Intermediate to Advanced	Ground waters with suitable water quality.
8. Electrodialysis/electrodialysis reversal		Basic to Intermediate	All ground waters.
9. Pre-formed hydrous manganese oxide filtration.	(g)	Intermediate	All ground waters.

TABLE B—LIST OF SMALL SYSTEMS COMPLIANCE TECHNOLOGIES FOR RADIONUCLIDES AND LIMITATIONS TO USE—Continued

Unit technologies	Limitations (see footnotes)	Operator skill level required ¹	Raw water quality range & considerations ¹
10. Activated alumina	(^a), (^b)	Advanced	All ground waters; competing anion concentrations may affect regeneration frequency.
11. Enhanced coagulation/filtration	(^c)	Advanced	Can treat a wide range of water qualities.

¹National Research Council (NRC). Safe Water from Every Tap: Improving Water Service to Small Communities. National Academy Press, Washington, D.C. 1997.

²A POU, or "point-of-use" technology is a treatment device installed at a single tap used for the purpose of reducing contaminants in drinking water at that one tap. POU devices are typically installed at the kitchen tap. See the April 21, 2000 NODA for more details.

Limitations Footnotes: Technologies for Radionuclides:

^aThe regeneration solution contains high concentrations of the contaminant ions. Disposal options should be carefully considered before choosing this technology.

^bWhen POU devices are used for compliance, programs for long-term operation, maintenance, and monitoring must be provided by water utility to ensure proper performance.

^cReject water disposal options should be carefully considered before choosing this technology. See other RO limitations described in the SWTR compliance technologies table.

^dThe combination of variable source water quality and the complexity of the water chemistry involved may make this technology too complex for small surface water systems.

^eRemoval efficiencies can vary depending on water quality.

^fThis technology may be very limited in application to small systems. Since the process requires static mixing, detention basins, and filtration, it is most applicable to systems with sufficiently high sulfate levels that already have a suitable filtration treatment train in place.

^gThis technology is most applicable to small systems that already have filtration in place.

^hHandling of chemicals required during regeneration and pH adjustment may be too difficult for small systems without an adequately trained operator.

ⁱAssumes modification to a coagulation/filtration process already in place.

TABLE C—BAT FOR SMALL COMMUNITY WATER SYSTEMS FOR THE RADIONUCLIDES LISTED IN § 141.66

Contaminant	Compliance technologies ¹ for system size categories (population served)		
	25-500	501-3,300	3,300-10,000
Combined radium-226 and radium-228	1, 2, 3, 4, 5, 6, 7, 8, 9 ..	1, 2, 3, 4, 5, 6, 7, 8, 9 ..	1, 2, 3, 4, 5, 6, 7, 8, 9.
Gross alpha particle activity	3, 4	3, 4	3, 4.
Beta particle activity and photon activity	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4.
Uranium	1, 2, 4, 10, 11	1, 2, 3, 4, 5, 10, 11	1, 2, 3, 4, 5, 10, 11.

¹Note: Numbers correspond to those technologies found listed in the table B to this paragraph.

(2) A State shall require community water systems to install and/or use any treatment technology identified in Table A to this section, or in the case of small water systems (those serving 10,000 persons or fewer), Table B and Table C of this section, as a condition for granting a variance except as provided in paragraph (a)(3) of this section. If, after the system's installation of the treatment technology, the system cannot meet the MCL, that system shall be eligible for a variance under the provisions of section 1415(a)(1)(A) of the Act.

(3) If a community water system can demonstrate through comprehensive engineering assessments, which may include pilot plant studies, that the treatment technologies identified in this section would only achieve a de-

minimus reduction in the contaminant level, the State may issue a schedule of compliance that requires the system being granted the variance to examine other treatment technologies as a condition of obtaining the variance.

(4) If the State determines that a treatment technology identified under paragraph (a)(3) of this section is technically feasible, the Administrator or primacy State may require the system to install and/or use that treatment technology in connection with a compliance schedule issued under the provisions of section 1415(a)(1)(A) of the Act. The State's determination shall be based upon studies by the system and other relevant information.

(5) The State may require a community water system to use bottled water,

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point-of-use devices, point-of-entry devices or other means as a condition of granting a variance or an exemption from the requirements of §141.66 of this chapter, to avoid an unreasonable risk to health.

(6) Community water systems that use bottled water as a condition for receiving a variance or an exemption from the requirements of §141.66 of this chapter must meet the requirements specified in either §142.62(g)(1) or §142.62(g)(2) and (g)(3).

(7) Community water systems that use point-of-use or point-of-entry devices as a condition for obtaining a variance or an exemption from the radionuclides NPDWRs must meet the conditions in §142.62(h)(1) through (h)(6).

(b) [Reserved]

[65 FR 76751, Dec. 7, 2000]

Subpart H—Indian Tribes

SOURCE: 53 FR 37411, Sept. 26, 1988, unless otherwise noted.

§ 142.72 Requirements for Tribal eligibility.

The Administrator is authorized to treat an Indian tribe as eligible to apply for primary enforcement for the Public Water System Program and the authority to waive the mailing requirements of §141.155(a) if it meets the following criteria:

(a) The Indian Tribe is recognized by the Secretary of the Interior.

(b) The Indian Tribe has a tribal governing body which is currently "carrying out substantial governmental duties and powers" over a defined area, (*i.e.*, is currently performing governmental functions to promote the health, safety, and welfare of the affected population within a defined geographic area).

(c) The Indian Tribe demonstrates that the functions to be performed in regulating the public water systems that the applicant intends to regulate are within the area of the Indian Tribal government's jurisdiction.

(d) The Indian Tribe is reasonably expected to be capable, in the Administrator's judgment, of administering (in a manner consistent with the terms

and purposes of the Act and all applicable regulations) an effective Public Water System program.

[53 FR 37411, Sept. 26, 1988, as amended at 59 FR 64344, Dec. 14, 1994; 63 FR 44535, Aug. 19, 1998]

§ 142.76 Request by an Indian Tribe for a determination of eligibility.

An Indian Tribe may apply to the Administrator for a determination that it meets the criteria of section 1451 of the Act. The application shall be concise and describe how the Indian Tribe will meet each of the requirements of §142.72. The application shall consist of the following information:

(a) A statement that the Tribe is recognized by the Secretary of the Interior.

(b) A descriptive statement demonstrating that the Tribal governing body is currently carrying out substantial governmental duties and powers over a defined area. The statement should:

(1) Describe the form of the Tribal government;

(2) Describe the types of governmental functions currently performed by the Tribal governing body such as, but not limited to, the exercise of police powers affecting (or relating to) the health, safety, and welfare of the affected population; taxation; and the exercise of the power of eminent domain; and

(3) Identify the sources of the Tribal government's authority to carry out the governmental functions currently being performed.

(c) A map or legal description of the area over which the Indian Tribe asserts jurisdiction; a statement by the Tribal Attorney General (or equivalent official) which describes the basis for the Tribe's jurisdictional assertion (including the nature or subject matter of the asserted jurisdiction); a copy of those documents such as Tribal constitutions, by-laws, charters, executive orders, codes, ordinances, and/or resolutions which the Tribe believes are relevant to its assertions regarding jurisdiction; and a description of the locations of the public water systems the Tribe proposes to regulate.

(d) A narrative statement describing the capability of the Indian Tribe to