

<b>Water Quality Standards for Designated Uses</b>	
<b>(8) RESIDUES, FOR FRESH WATER USES:</b> Floating solids, debris, sludge, deposits, foam, scum, or other residues (criteria are not applicable to groundwater) (See note 13)	
(A) Water Supply (i) drinking, culinary, and food processing	May not, alone or in combination with other substances, be present in concentrations or amounts that: form objectionable deposits; constitute a nuisance; produce objectionable odor or taste; or result in undesirable or nuisance species.
(A) Water Supply (ii) agriculture, including irrigation and stock watering	Same as in (8)(A)(i).
(A) Water Supply (iii) aquaculture	Same as (8)(A)(i)
(A) Water Supply (iv) industrial	Same as (8)(A)(i).
(B) Water Recreation (i) contact recreation	Same as (8)(A)(i).
(B) Water Recreation (ii) secondary recreation	Same as (8)(A)(i).
(C) Growth and Propagation of Fish, Shellfish, Other Aquatic Life, and Wildlife	May not, alone or in combination with other substances, be present in concentrations or amounts that: form objectionable deposits or result in undesirable or nuisance species.
<b>(9) SEDIMENT, FOR FRESH WATER USES (criteria are not applicable to groundwater)</b>	
(A) Water Supply (i) drinking, culinary, and food processing	No measurable increase in concentration of settleable solids above natural conditions, as measured by the volumetric Imhoff cone method (see note 11).
(A) Water Supply (ii) agriculture, including irrigation and stock watering	For sprinkler irrigation, water must be free of particles of 0.074 mm or coarser. For irrigation or water spreading, may not exceed 200 mg/l for an extended period of time.
(A) Water Supply (iii) aquaculture	No imposed loads that will interfere with established water supply treatment levels.
(A) Water Supply (iv) industrial	Same as (9)(A)(iii).
(B) Water Recreation (i) contact recreation	Same as (9)(A)(i).
(B) Water Recreation (ii) secondary recreation	May not pose hazards to incidental human contact or cause interference with the use.

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(D) Harvesting for Consumption of Raw Mollusks or Other Raw Aquatic Life	Same as (18)(A)(ii).
<b>(19) RADIOACTIVITY, FOR MARINE WATER USES</b>	
(A) Water Supply (i) aquaculture	May not exceed the concentrations specified in Table I of the <i>Alaska Water Quality Criteria Manual</i> (see note 5) for radioactive contaminants. Concentration factors for organisms involved may not exceed maximum permissible limits for specific radioisotopes and unidentified mixtures as established in 10 C.F.R. 20 (see note 9) and National Bureau of Standards, <i>Handbook 69</i> (see note 10).
(A) Water Supply (ii) seafood processing	May not exceed the concentrations specified in Table I of the <i>Alaska Water Quality Criteria Manual</i> , (see note 5) for radioactive contaminants and may not exceed limits specified in 10 C.F.R. 20 (see note 9) or National Bureau of Standards, <i>Handbook 69</i> (see note 10).
(A) Water Supply (iii) industrial	Same as (19)(A)(ii).
(B) Water Recreation (i) contact recreation	Same as (19)(A)(ii).
(B) Water Recreation (ii) secondary recreation	Same as (19)(A)(ii).
(C) Growth and Propagation of Fish, Shellfish, Other Aquatic Life, and Wildlife	Same as (19)(A)(i).
(D) Harvesting for Consumption of Raw Mollusks or Other Raw Aquatic Life	Same as (19)(A)(i).
<b>(20) RESIDUES, FOR MARINE WATER USES:</b> Floating solids, debris, sludge, deposits, foam, scum, or other residues (See note 13)	
(A) Water Supply (i) aquaculture	May not, alone or in combination with other substances be present in concentrations or amounts that: form objectionable deposits; constitute a nuisance; produce objectionable odor or taste; or result in undesirable or nuisance species.
(A) Water Supply (ii) seafood processing	Same as (20)(A)(i).
(A) Water Supply (iii) industrial	Same as (20)(A)(i)
(B) Water Recreation (i) contact recreation	Same as (20)(A)(i).
(B) Water Recreation (ii) secondary recreation	Same as (20)(A)(i).

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of this section.

9. Wherever cited in this chapter, 10 C.F.R. 20 means the Standards for Protection Against Radiation as of January 1, 1978, adopted by reference.

10. Wherever cited in this chapter, National Bureau of Standards, *Handbook 69* means *Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and Water for Occupational Exposure*, United States Department of Commerce, National Bureau of Standards Handbook 69, June 5, 1959, adopted by reference

11. Volumetric measurements of settleable solids must be determined according to the following procedure:

(A) first, an Imhoff cone must be filled to the one-liter mark with thoroughly mixed sample;

(B) second, the sample must settle for 45 minutes;

(C) third, the sides of the cone must be gently stirred with a rod or by spinning;

(D) fourth, the sample must settle 15 minutes longer, and the volume of settleable matter in the cone must be recorded as milliliters per liter;

(E) fifth, if the settled matter contains pockets of liquid between large settled particles, the volume of these pockets must be estimated and subtracted from the volume of settled matter.

12. If a permit applicant proposes to raise the total dissolved solids (TDS) levels in the receiving water to result in a concentration in the waterbody between 500 mg/l and 1,000 mg/l for all sources or above 110 mg/l for the potassium ion, the department will require a permit applicant to provide information that the department identifies as necessary to determine if the proposed TDS level will cause or can reasonably be expected to cause an adverse effect to aquatic life; based on its analysis, the department will limit the TDS level in the waterbody as necessary to prevent an adverse effect, and will set permit effluent limits accordingly; the burden of proof to demonstrate no adverse effect is on the permit applicant; implementation of the “no adverse effect” criterion is not subject to 18 AAC 70.235.

13. In deciding what constitutes a nuisance or an objectionable deposit, odor or taste, or an undesirable or nuisance species, the department will consider the extent to which the presence of residue

(A) results in complaints from existing users:

(B) is consistent with the intended use of the area as designated in a land use or other resource management plan adopted by a federal, state or local government; or

(C) otherwise impairs or could reasonably be expected to impair existing or designated uses of the water body.

(c) Water quality must be analyzed according to

(1) *Standard Methods for the Examination of Water and Wastewater*, 18th edition, 1992, 19<sup>th</sup> edition, 1995, or 20<sup>th</sup> edition, 1998, published jointly by the American Public Health and American Water Works Associations, and the Water Environment Federation; the editions of *Standard Methods for the Examination of Water and Wastewater* listed in this paragraph are adopted by reference, except that analytical methods the following analytical methods 3111B, 3111D, 3112B, 3113B, and 3114B in the 20<sup>th</sup> edition are not adopted by reference and are not approved;

(2) *Methods for Chemical Analysis of Water and Wastes*, March 1983, Environmental Monitoring and Support Laboratory, Office of Research and Development, United States Environmental Protection Agency, Technical Report No. EPA 600/4-79-020, adopted by reference;