

7:10-7.2 Recommended upper limits and optimum ranges for physical, chemical and biological characteristics in drinking water

(a) The following are the recommended upper limits or optimum ranges, as applicable, for the listed physical, chemical and biological characteristics in drinking water. If a physical, chemical, or biological characteristic exceeds the recommended upper limit or falls outside a recommended optimum range, the drinking water may be determined to be unacceptable if, in the judgment of the administrative authority, such characteristics either singly or in combination would render the water unduly unpalatable or aesthetically objectionable.

1. Physical characteristics:

	<u>Recommended upper limit or optimum range</u>
Color	10 color units (standard cobalt scale)
pH	6.5 to 8.5 (optimum range)
Odor	3 Threshold odor number
Taste	No objectionable taste

2. Chemical characteristics:

	<u>Recommended upper limit</u>
ABS/L.A.S. (1)	0.5 mg/l
Aluminum	0.2 mg/l
Chloride	250 mg/l
Fluoride (2)	2 mg/l
Hardness (as CaCO ₃)	250 mg/l
Iron (3)	0.3 mg/l
Manganese (3)	0.05 mg/l
Silver	0.1 mg/l
Sodium (4)	50 mg/l
Sulfate	250 mg/l
Total dissolved solids	500 mg/l
Zinc	5 mg/l

Notes:

- (1) Alkyl-benzene-sulfonate and linear-alkyl-sulfonate, or similar methylene blue reactive substances contained in synthetic detergents.
- (2) A range of 0.8 to 1.2 mg/l fluoride is recommended for those water supplies in which the fluoride concentration is artificially adjusted.
- (3) The limits for iron and manganese may be raised to 0.6 mg/l and to 0.1 mg/l, respectively, if a sequestering treatment is provided. However, when either of these higher limits is exceeded in the raw water of a public community water system, the water shall be treated so as to reduce the iron concentration to below 0.3 mg/l and/or the manganese concentration to below 0.05 mg/l.
- (4) Significant only for consumers requiring low sodium diet.

3. Biological characteristics: Water intended for potable purposes shall be free from:

- i. Visible organisms such as algae, algal diatoms, crustaceans, arachnids, and larvae; and
- ii. Those micro-organisms which render the water unpalatable or unaesthetic to the consumer.

7:10-7.3 Monitoring

(a) When a public community water system is equipped with treatment facilities specifically for pH adjustment and/or iron and/or manganese removal, the supplier of water shall conduct analyses with a minimum frequency of once daily for pH, iron or manganese, as applicable, on samples of water at the point(s) of entry to the distribution system. Such analyses need not be performed by a certified laboratory.

(b) The supplier of water from a public community water system other than a bulk purchase system shall analyze a water sample taken from each point of entry to the distribution system for the physical and chemical characteristics listed at N.J.A.C. 7:10-7.2(a) with a minimum frequency of once a year for surface water supplies and once in three years for ground water supplies. Such analyses shall be performed by a certified laboratory.

(c) The supplier of water from a public community water system shall analyze water samples from its distribution system in accordance with the following:

- (1) Each supplier of water serving a population equal to or greater than 10,000 shall sample for iron and manganese with a minimum frequency of once a year.
- (2) Each supplier of water serving a population of less than 10,000 shall sample for iron and manganese with a maximum frequency of once in three years; and
- (3) Each supplier of water shall collect one additional sample for iron and manganese once for every 50,000 population served, to a maximum of five samples per year.

(d) The Department may require the supplier of water to take more frequent samples for specific characteristics if the routine samples reveal high levels. Such samples may, with prior Department approval, be analyzed by the supplier of water rather than a certified laboratory.

(e) Any person who owns and/or operates a nonpublic water system shall sample and analyze the water for the physical and chemical characteristics listed at N.J.A.C. 7:10-7.2(a) at a frequency established by the administrative authority.

7:10-7.4 Public notification

(a) Whenever the average of samples collected in any one monitoring period exceeds the recommended upper limit for iron, manganese or sodium specified at N.J.A.C. 7:10-7.2 in a public community water system, the supplier of water shall provide public notification by one of the following methods:

- 1. Newspaper advertisement in a daily or weekly paper serving the local area within 30 days of the exceedance;
- 2. Individual notification to consumers by direct mail or flyers within 90 days of the exceedance; or

3. Annual water quality report mailed to consumers provided such annual report is issued within 180 days of the exceedance.

(b) The public notification shall be repeated each calendar year that the exceedance continues.

(c) The public notification shall specify the recommended upper limit for iron, manganese or sodium exceeded, the actual level of iron, manganese or sodium in the water, a description of the potential adverse effects of the exceedance, and a description of the cause or suspected cause of the exceedance.

SUBCHAPTER 8. DRINKING WATER ADDITIVES

7:10-8.1 Purpose and scope

This subchapter contains the standards for the use or occurrence of direct and indirect additives in public water systems in order to protect against the adverse health effects of such additives. A supplier of water shall meet the requirements of this subchapter only with regard to the public water system facility and related appurtenances under the control of the supplier of water.

7:10-8.2 Drinking water additives

(a) The Department adopts and incorporates by reference the following ANSI/NSF standards, as amended and supplemented. The standards may be obtained from NSF International, 475 Plymouth Road, P.O. Box 130140, Ann Arbor, Michigan 48113-0140.

1. ANSI/NSF Standard 60, Drinking Water Treatment Chemicals, and

2. ANSI/NSF Standard 61, Drinking Water System Components.

i. For the purpose of this subchapter, ANSI/NSF Standard 61 shall apply only to new construction, or the modification or repair of existing facilities.

(b) Except as provided in (e) and (f) below, a supplier of water shall use only additives and drinking water system components which meet the standards listed in (a) above.

(c) A supplier of water shall use only additives certified by an organization which has been accredited by ANSI to test and certify additives. The supplier of water shall not use additives certified only by the manufacturer.

(d) The supplier of water shall maintain at the treatment plant, for a minimum period of 10 years, records of all additives used to treat the water, including additive name, certification, point of addition and quantities.

(e) If a supplier of water desires to use an additive or component which is not certified pursuant to ANSI/NSF Standard 60 or 61 and no similar additive(s) or components has been certified by any organization which has been accredited by ANSI to test and certify additives, the supplier of water may submit a request to the Department for approval to use the uncertified additive or component on a temporary basis. The request for approval must include the manufacturer's detailed product information regarding potential adverse health effects and the manufacturing and quality control data indicating the purity of the additive.

(f) Any construction materials other than drinking water system components that come in contact with a water supply are exempt from the requirements of this subchapter, subject to (g) below.

(g) The Department reserves the right to prohibit use of a construction material that it determines is detrimental to public health and/or safety when in contact with a water supply.

(h) This subchapter shall become operative May 17, 1997.

SUBCHAPTER 9. SURFACE WATER TREATMENT REQUIREMENTS

7:10-9.1 Purpose and scope

This subchapter establishes minimum treatment requirements for public water systems which use surface water or ground water under the direct influence of surface water and discretionary changes to the National Regulations, 40 CFR 141, Subpart H—Filtration and Disinfection, as adopted and incorporated by reference at N.J.A.C. 7:10-5.1.

7:10-9.2 Discretionary changes to national surface water treatment requirements

(a) In accordance with the discretionary authority permitted by the National Regulations, for compliance with the State primary drinking water regulations including surface water treatment requirements, the following shall apply:

1. Each supplier of water from a system that uses a surface water source or a ground water source under the direct influence of surface water must provide filtration treatment using a filtration method or methods as established under the National Regulations, 40 CFR 141.73. The Department shall grant exceptions to this requirement only for ground water sources that are determined to be under the direct influence of surface water pursuant to N.J.A.C. 7:10-9.3 and that meet the filtration avoidance criteria established under the National Regulations at 40 CFR 141.71 (a) and (b).