Content

Title： Drinking Water Quality Standards Ch

Date： 2024.11.25

Legislative： 1.Nine Articles drafted and promulgated by Environmental Protection Administration Order (87) Huan-Shu-Tu-Tzu No. 004428 on February 4, 1998
2.Revisions to Article 3 promulgated by Environmental Protection Administration Order Huan-Shu-Tu-Tzu No. 0920028896 on May 7, 2003
3.Revisions to Articles 3, 4, 5 and 6 promulgated by Environmental Protection Administration Order Huan-Shu-Tu-Tzu No. 0940039894 on May 30, 2005
4.Revisions to Article 3 promulgated by Environmental Protection Administration Order Huan-Shu-Tu-Tzu No. 0960100652 on January 2, 2008
5.Revisions to Article 3 promulgated by Environmental Protection Administration Order Huan-Shu-Tu-Tzu No.0980106331E on November 26, 2009.
6.Revisions to Article 3 promulgated by Environmental Protection Administration Order Huan-Shu-Tu-Tzu No.1030001229 on January 9, 2014.
7.Revisions to Article 3, 4, 5 promulgated by Environmental Protection Administration Order Huan-Shu-Tu-Tzu No.1060000881 on January 10, 2017.
8.Revisions to Article 5 and addition of Articles 5-1 promulgated by Environmental Protection Administration Order Huan-Shu-Shui-Tzu No. 1111059186A on May 23, 2022.
9.Addition of Articles 3-1 promulgated by Ministry of Environment Order Huan-Bu-Shui-Tzu No. 1131072826 on November 25, 2024.

Content： Article 1　These Standards are determined pursuant to Article 11, Paragraph 2 of the Drinking Water Management Act (herein referred to as "this Act").
Article 2　These standards shall apply to drinking water supplied from drinking water equipment designated in Article 4 of this Act and other drinking water designated by the central competent authority.
Article 3　Regulations of these standards are set forth herein.
I. Bacterial standards: (Samples for total bacterial count must be collected from the finished water distribution networks that receive water from water treatment utilities with disinfection regime)

Item	Maximum limit	Unit
1. Coliform group	6 (Multiple-tube fermentation method)	Most probable number (MPN)/100 milliliters
	6 (Membrane filtration method)	Colony-forming unit(CFU)/100 milliliters
2. Total bacterial count	100	Colony-forming unit(CFU)/milliliter

II. Physical standards:

Item	Maximum limit	Unit
1. Odor	3	Threshold odor number (TON)
2. Turbidity	2	NTU (nephelometric turbidity unit)
3. Color	5	Platinum-cobalt unit

III. Chemical standards:
A. Substances that impact health:

Item	Maximum limit	Unit
1. Arsenic	0.01	milligrams/liter
2. Lead	0.01	milligrams/liter

3. Selenium		0.01	milligrams/liter
4. Total chromium		0.05	milligrams/liter
5. Cadmium		0.005	milligrams/liter
6. Barium		2.0	milligrams/liter
7. Antimony		0.01	milligrams/liter
8. Nickel		0.1 0.07 This standard is effective starting on July 1, 2018. 0.02 This standard is effective starting on July 1, 2020.	milligrams/liter
9. Mercury		0.002 0.001 This standard is effective starting on July 1, 2020.	milligrams/liter
10. Cyanide (as CN-)		0.05	milligrams/liter
11. Nitrite-nitrogen		0.1	milligrams/liter
Disinfection byproducts	12. Total Trihalomethanes	0.08	milligrams/liter
	13. Haloacetic acids (This concentration is defined as the sum of measured concentrations for five haloacetic acids, including monochloroacetic acid (MCAA), dichloroacetic acid (DCAA), trichloroacetic acid (TCAA), monobromoacetic acid (MBAA), and dibromoacetic acid.)	0.060	milligrams/liter
	14. Bromate	0.01	milligrams/liter
	15. Chlorite (This regulation only applies to water supply systems that use gaseous chlorine dioxide as disinfectant)	0.7	milligrams/liter
Volatile organic compounds	16. Trichloroethene	0.005	milligrams/liter
	17. Carbon tetrachloride	0.005	milligrams/liter
	18. 1,1,1-Trichloroethane	0.20	milligrams/liter
	19. 1,2-Dichloroethane	0.005	milligrams/liter

	20. Vinyl chloride	0.002 0.0003 This standard is effective starting on July 1, 2018.	milligrams/liter
	21. Benzene	0.005	milligrams/liter
	22. 1,4-Dichlorobenzene	0.075	milligrams/liter
	23. 1.1-Dichloroethylene	0.007	milligrams/liter
	24. Dichloromethane	0.02	milligrams/liter
	25. 1,2-Dichlorobenzene	0.6	milligrams/liter
	26. Toluene	0.7	milligrams/liter
	27. Xylenes (This regulated concentration for Xylenes is defined as the sum of the measured concentrations of three xylene isomers, including 1,2-Xylene, 1,3-Xylene, and 1,4-Xylene.)	0.5	milligrams/liter
	28. Cis-1,2-Dichloroethene	0.07	milligrams/liter
	29. Trans-1,2-Dichloroethene	0.1	milligrams/liter
	30. Tetrachloroethene	0.005	milligrams/liter
Agricultural chemicals	31. Endosulfan	0.003	milligrams/liter
	32. Lindane	0.0002	milligrams/liter
	33. Butachlor	0.02	milligrams/liter
	34. Dichlorophenoxyacetic acid	0.07	milligrams/liter
	35. Paraquat	0.01	milligrams/liter
	36. Methomyl	0.01	milligrams/liter
	37. Carbofuran	0.02	milligrams/liter
	38. Isoprocarb	0.02	milligrams/liter
	39. Methamidophos	0.02	milligrams/liter
	40. Diazinon	0.005	milligrams/liter
	41. Parathion	0.02	milligrams/liter
	42. EPN	0.005	milligrams/liter
	43. Monocrotophos	0.003	milligrams/liter

Persistent organic pollutants	44 Dioxin This regulated concentration for Dioxin is defined as the sum of the measured concentrations of 17 compounds, including 2,3,7,8-Tetrachlorinated dibenzo-p-dioxin-2,3,7,8-TeCDD, 2,3,7,8-Tetra chlorinated dibenzofuran,2,3,7,8-TeCDF and 2,3,7,8- penta-, hexa-, hepta-, and octa-chlorinated dioxins and furan. This regulated concentration for Dioxin is multiplied by the dioxin toxic equivalency factor (WHO-TEFs) provided by World Health Organization, and is expressed as a total toxicity equivalency quantity (TEQ). (If any drinking water treatment facilities locate within a 5-kilometer distance having a large pollution source, it must be monitored once every year. If the measured Dioxin concentrations do not exceed the maximum permitted limit for two consecutive years, the monitoring frequency may be reduced to once every two years starting in the following year.)	3	Petagram - World Health Organization - total toxicity equivalency quantity/liter (pg-WHO-TEQ/L)

B. Substances with potential health impact:

Item	Maximum limit	Unit
1. Flouride (as F^-)	0.8	milligrams/liter
2. Nitrate nitrogen	10.0	milligrams/liter
3. Silver	0.05	milligrams/liter
4. Molybdenum (This regulation only applies to water supply systems with a potential pollution source, such as those with semiconductor fabrication plants, optoelectronic manufacturing plants, or parts manufacturing plants, located within a 5-kilometer distance upstream from their water intake. The testing frequency is once per quarter. If the test values do not exceed the maximum permissible limits for two consecutive years, the testing frequency could reduce to once per year from the following year.)	0.07	milligrams/liter

5. Indium (This regulation only applies to water supply systems with a potential pollution source, such as those with semiconductor fabrication plants, optoelectronic manufacturing plants, or parts manufacturing plants, located within a 5-kilometer distance upstream from their water intake The testing frequency is once per quarter. If the test values do not exceed the maximum permissible limits for two consecutive years, the testing frequency could reduce to once per year from the following year.)	0.07	milligrams/liter

C. Contaminants that cause aesthetic, cosmetic, and technical effects:

Item	Maximum limit	Unit
1. Iron	0.3	milligrams/liter
2. Manganese	0.05	milligrams/liter
3. Copper	1.0	milligrams/liter
4. Zinc	5.0	milligrams/liter
5. Sulfate (as SO_4^{2-})	250	milligrams/liter
6. Phenols	0.001	milligrams/liter
7. Anionic surface-active agents	0.5	milligrams/liter
8. Chloride (as Cl^-)	250	milligrams/liter
9. Ammonia nitrogen	0.1	milligrams/liter
10. Total hardness (as $CaCO_3$)	300	milligrams/liter
11. Total dissolved solids	500	milligrams/liter
12. Aluminum (This regulation concentration is defined as the concentration of total aluminum.)	0.3 0.2 This standard is effective starting on July 1, 2019. (This regulation is not applicable when the turbidity of the water source is over 500 NTU in the period of typhoon landfall warning, and when the turbidity of water source is over 1000 NTU during the three days after the warning is lifted.)	milligrams/liter

D. Limit range of residual chlorine (Limited to water supply systems using chlorine as disinfectant):

Item	Limit range	Unit

Free available residual chlorine	0.2-1.0	milligrams/liter

E. Range for pH index (water treated by stationary continuous water supply equipment on public or private premises are not be subjected to this limitation):

Item	Limit range	Unit
Hydrogen ion concentration index (pH value)	6.0-8.5	No unit

Article 3-1 The standards for Per- and Polyfluoroalkyl Substances (PFAS) are as follows:

Item		Limit range	Unit
Substances that impact health (Persistent organic pollutants)	Perfluorooctanoic acid (PFOA) + Perfluorooctane sulfonic acid (PFOS)	0.00005 This standard is effective starting on July 1, 2027.	milligrams/liter
	Perfluorooctane sulfonic acid (PFOS) + Perfluorohexane sulfonic acid (PFHxS)	0.00007 This standard is effective starting on July 1, 2027.	milligrams/liter

The water supply entities or management entities of water purification equipment shall, from January 1, 2025, until the effective date mentioned in the preceding paragraph, conduct water quality testing as follows: for equipment with a water supply exceeding 20,000 cubic meters per day, testing shall be performed at least twice, with a minimum interval of 360 days between tests. For equipment with daily water supply below 20,000 cubic meters, at least one test shall be conducted. If any water quality parameter exceeds the maximum limit, the water supply or management entities of the water purification equipment must, within seven days of the issuance of the test report, notify the central competent authority, the central competent authority under the Water Supply Act, and the competent authority of the municipality or county (city) where the equipment is located. Additionally, within 30 days, they must submit a drinking water quality management plan to the central competent authority for record-keeping and send a copy to the central competent authority under the Water Supply Act and the competent authority of the municipality or county (city) where the equipment is located.

If, before the effective date mentioned in the preceding paragraph, the competent authority conducts random water quality inspections and finds that the drinking water quality test values exceed the maximum limit, the competent authority shall notify the water supply or management entities of the water purification equipment to make improvements. The water supply or management entities must, within 30 days after receiving the notification, submit a drinking water quality management plan to the central competent authority for record-keeping and send a copy to the central competent authority under the Water Supply Act and the competent authority of the municipality or county (city) where the equipment is located.

For the drinking water quality management plan outlined in the previous two paragraphs, if no additional equipment purchases or construction work are involved, the implementation must be completed within three months from the submission date of the plan to the central competent authority for record-keeping. If additional equipment purchases or construction work are required, which must be completed within a maximum of two years from the submission date of the drinking water quality management plan. If the plan cannot be completed within the stipulated timeframe due to natural disasters or other force majeure events, the relevant supporting documents and materials must be submitted to the central competent authority at least 30 days before the deadline to apply for an extension or modification of the management plan for re-approval. Copies of the request should also be sent to the central competent authority under the Water Supply Act, as well as to the competent authority of the municipality or county (city) where the water purification equipment is located.

The implementation deadlines for the previous three drinking water quality management plans shall not exceed the effective date specified in paragraph 1.

Article 4 For tap water, simple water supply and treatment facilities, and community-installed public water supply systems, when source water turbidity value exceeds 1,500 NTU caused by torrential rains or other natural disasters, the maximum turbidity limit for drinking water may apply to 4 NTU.

Drinking water source turbidity testing data in the foregoing paragraph shall be provided by tap water enterprises, simple water supply and treatment units or community-installed public water supply units.

Article 5 For tap water, simple water supply and treatment facilities, and community-installed public water supply systems, when source water turbidity value exceeds 1,500 NTU caused by torrential rains or other natural disasters, the limit range of free residual chlorine may apply to the following values (shall apply only to water supply systems that add chlorine disinfectants).

Item	Limit range	Unit
Free residual chlorine	0.2-3.0	milligrams/liter

Article 5-1 For tap water that needs to be supplied by zones due to the natural disasters described in the preceding article, during the natural disaster response actions period, the drinking water quality standards in the supply districts are as follows.

I. Limit range of free residual chlorine (shall apply only to water supply systems that add chlorine disinfectants).

Item	Limit range	Unit
Free residual chlorine	0.2-3.0	milligrams/liter

II. Physical standards:

Item	Maximum limit	Unit
Turbidity	4	NTU(nephelometric turbidity unit)
Color	10	Platinum-cobalt unit

III. Contaminants that cause aesthetic, cosmetic, and technical effects:

Item	Maximum limit	Unit
Iron	0.5	milligrams/liter
Manganese	0.1	milligrams/liter
Total hardness (as $CaCO_3$)	400	milligrams/liter
Total dissolved solids	800	milligrams/liter

The natural disaster response actions period described in the first paragraph referred to the period which Central Emergency Operation Center is established to deal with natural disasters, in accordance with Article 13, Paragraph 1 of the Disaster Prevention and Protection Act.

Article 6 (Deleted)

Article 7 Testing methods for each water quality item designated in these Standards shall be designated and officially announced by the central competent authority.

Article 8 A competent authority that conducts water quality analysis in accordance with these Standards may commission an approved analysis laboratory to assist with analysis.

Article 9 Unless an implementation date is separately designated, the regulation items in these standards shall take effect on the date of promulgation.

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