Ultraviolet microbiological water treatment systems

NSF International Standard/ American National Standard

NSF/ANSI 55 – 2002
Addendum 1.0 – 2002

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for Drinking Water Treatment Units –

Ultraviolet microbiological water treatment systems

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Contents

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Revisions to NSF/ANSI 55 – 2002 are shown in this addendum as ~~crossouts~~ for deletions and highlights for additions.

NSF/ANSI Standard
for Drinking Water Treatment Units —

Drinking water treatment units — Aesthetic effects

Table 1 – Extraction testing parameters

Parameter	Maximum contaminant concentration (MCC) mg/L	Maximum drinking water level (MDWL) mg/L	Advisory concentration mg/L	USEPA method(s)
aluminum	—	0.5	0.05 – 0.2[1]	200.7, 200.8
antimony	0.006	—	—	200.8, 200.9
arsenic	~~0.025~~ 0.010	—	—	200.8, 200.9
barium	2.0	—	0.05[2]	200.7, 200.8
beryllium	0.004	—	detected[3]	200.7, 200.8, 200.9
cadmium	0.005	—	detected[3]	200.8, 200.9
chromium	0.1	—	—	200.7, 200.8, 200.9
copper	1.3	—	0.05[2, 4]	200.7, 200.8
lead	0.015	—	0.005[2, 3, 4, 5]	200.8, 200.9
manganese	—	0.3	0.05[1]	200.7, 200.8
mercury	0.002	—	detected[3]	200.8, 245.1
nickel	—	0.1	0.05[2]	200.7, 200.8
selenium	0.05	—	—	200.8, 200.9
thallium	0.002		detected[3]	200.8, 200.9
volatile organic compounds (includes)[6]				
total	—	—	0.010[2]	502.2
benzene	0.005	—	detected[3, 5]	502.2
carbon disulfide	—	0.05	—	GC/PID
carbon tetrachloride	0.005	—	detected[3]	502.2
1,2-dichloroethane	0.005	—	detected[5]	502.2

Table 1 – Extraction testing parameters

Parameter	Maximum contaminant concentration (MCC) mg/L	Maximum drinking water level (MDWL) mg/L	Advisory concentration mg/L	USEPA method(s)
1,1-dichloroethylene	0.007	—	—	502.2
dichloromethane	0.005	—	detected[5]	502.2
1,2-dichloropropane	0.005	—	detected[5]	502.2
ethylbenzene	0.7	—	0.005[2]	502.2
styrene	0.1	—	0.005[2]	502.2
tetrachloroethylene	0.005	—	detected[5]	502.2
toluene	1.0	—	0.005[2]	502.2
total trihalomethanes	0.080	—	—	502.2
bromodichloromethane	—	—	0.005[2, 5]	502.2
bromoform	—	—	0.005[2, 5]	502.2
chlorodibromomethane	—	—	0.005[2, 5]	502.2
chloroform	—	—	0.005[2, 5]	502.2
1,1,1-trichloroethane	0.2	—	0.005[2]	502.2
1,1,2-trichloroethane	0.005	—	—	502.2
trichloroethylene	0.005	—	—	502.2
vinyl chloride	0.002	—	detected[2, 5]	502.2
o-,m-,p-xylene	10	—	0.005[2]	502.2

[1] Based on the final USEPA Secondary Maximum Contaminant Level published in 56FR3573. For aluminum, the high level of 0.2 mg/L is shown to allow for products such as activated aluminum media.

[2] Contaminant potentially contributed by other sources in the distribution and plumbing system.

[3] Contaminant should not be intentionally present in drinking water treatment unit systems.

[4] Subpopulations exist that are sensitive to exposure to this contaminant.

[5] Contaminant has a Maximum Contaminant Level Goal (MCLG) of zero.

[6] The referenced method includes approximately 60 chemicals. Testing for the chemicals as specifically listed is required. Others, if detected, shall be treated as having a 0.005 mg/L advisory concentration. An advisory concentration of 0.010 mg/L applies to total organic compounds.

– concluded –

Standards and Criteria[2]

The following standards and criteria established and adopted by NSF as minimum voluntary consensus standards are used internationally:

2 Food equipment
3 Commercial warewashing equipment
4 Commercial cooking, rethermalization, and powered hot food holding and transport equipment
5 Water heaters, hot water supply boilers, and heat recovery equipment
6 Dispensing freezers
7 Commercial refrigerators and freezers
8 Commercial powered food preparation equipment
12 Automatic ice making equipment
13 Refuse processors and processing systems
14 Plastics piping system components and related materials
18 Manual food and beverage dispensing equipment
20 Commercial bulk milk dispensing equipment
21 Thermoplastic refuse containers
24 Plumbing system components for manufactured homes and recreational vehicles
25 Vending machines for food and beverages
29 Detergent and chemical feeders for commercial spray-type dishwashing machines
35 High pressure decorative laminates (HPDL) for surfacing food service equipment
36 Dinnerware
37 Air curtains for entranceways in food and food service establishments
40 Residential wastewater treatment systems
41 Non-liquid saturated treatment systems
42 Drinking water treatment units – Aesthetic effects
44 Residential cation exchange water softeners
46 Evaluation of components and devices used in wastewater treatment systems
49 Class II (laminar flow) biosafety cabinetry
50 Circulation system components and related materials for swimming pools, spas/hot tubs
51 Food equipment materials
52 Supplemental flooring
53 Drinking water treatment units – Health effects
55 Ultraviolet microbiological water treatment systems
58 Reverse osmosis drinking water treatment systems
59 Mobile food carts
60 Drinking water treatment chemicals – Health effects
61 Drinking water system components – Health effects
62 Drinking water distillation systems
75 Non-potentially hazardous foods
116 Non-food compounds used in food processing facilities – Food grade lubricants (draft standard for trial use)
170 Glossary of food equipment terminology
173 Dietary supplements (draft standard for trial use)
184 Residential dishwashers
14159 Safety of machinery – Hygiene requirements for the design of machinery
14159-1 Hygiene requirements for the design of meat and poultry processing equipment
C-2 Special equipment and/or devices

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***THE HOPE OF MANKIND** rests in the ability of man to define and seek out the environment which will permit him to live with fellow creatures of the earth, in health, in peace, and in mutual respect.*

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