

ARTICLE 141
WATER SUPPLY SAFETY STANDARDS

§141.01 Definitions.

ANSI. "ANSI" shall mean American National Standards Institute.

APHP. "APHP" shall mean American Public Health Association.

AWWA. "AWWA" shall mean American Water Works Association.

Bottled Water. "Bottled Water" shall mean any product, including natural spring or well water taken from municipal or private utility systems or other water sources, distilled water, deionized water, or any of the foregoing to which chemicals may be added, which are put into sealed bottles, packages or in other containers, to be sold for human consumption.

Building. "Building" shall mean any enclosed structure occupied or intended for supporting or sheltering any occupancy, including the service equipment therein. The term "building" used herein shall include, where applicable, any affiliated buildings or structures, such as a building complex.

Bulk Water. "Bulk Water" shall mean water intended for potable purposes which is transported via licensed potable water tankers or trucks or equivalent from one area to another.

Contamination. "Contamination" shall mean the introduction into water of any biological, chemical, physical, or radiological substance, waste or waste water in concentrations that makes water unfit for its intended use.

Department. "Department" shall mean the New York City Department of Health and Mental Hygiene.

Device. "Device" shall mean the mechanical equipment used for the addition of chemicals to the drinking water supply of a building.

Disinfection. "Disinfection" shall mean a process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

Drinking Water. "Drinking Water" shall mean water used for human consumption or used directly or indirectly in connection with the preparation of food for human consumption including the cleaning of utensils used in the preparation of food.

Fluoridation. "Fluoridation" shall mean treatment of water by the adjustment of fluoride ion concentrations to provide the optimum fluoride concentration in water.

Groundwater. "Groundwater" shall mean water at or below the water table.

Licensed Master Plumber. "Licensed Master Plumber" shall mean any person licensed by the Commissioner of Buildings to engage in the business or trade of master plumber to perform plumbing work within New York City.

Municipal Water Supply. "Municipal Water Supply" shall mean all pipes, mains and structures owned and/or maintained by the City, for the conveyance of drinking water to the public for human consumption or any connection to the municipal water supply system.

Non-potable Water. "Non-potable Water" shall mean water which is not treated to the approved drinking water standards, is not suitable and not intended for human consumption (drinking, washing or culinary purposes), but is produced and delivered to users for other purposes such as watering of lawns, washing vehicles and property.

NSF. "NSF" shall mean National Sanitation Foundation.

Parts per million (ppm). "Parts per million (ppm)" shall mean a unit of concentration expressed in parts per million (ppm) and is equivalent to milligrams per liter.

Potable Water. "Potable Water" shall mean drinking water that meets the water quality requirements established in Subpart 5-1 of the State Sanitary Code which is suitable for human consumption or used directly or indirectly in connection with the preparation of food for human consumption, including the cleaning of utensils used in the preparation of food.

State. "State" shall mean the New York State Department of Health.

State Sanitary Code. "State Sanitary Code" shall mean Title 10, Chapter 1 of the Codes, Rules and Regulations of the State of New York.

Water Supply Tank. "Water Supply Tank" shall mean any device used to store drinking water used for potable purposes as part of the drinking water supply system in a building.

WEF. "WEF" shall mean Water Environment Federation.

Well. "Well" shall mean any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location or acquisition of ground water.

Well Water. "Well Water" shall mean water taken from below the ground through piping or similar installed device using external force or vacuum.

§141.03 Drinking Water Supply Source.

The owner, agent or other person in control of a building shall supply potable water by connecting to the municipal water supply or a source approved either by the Department or the State, which shall be available at all times on the premises of said building. The drinking water supply system of such building shall be connected to such approved source and shall not be subject to contamination. When supplied from a public source, the drinking water supply system shall not be connected to private or unapproved water supplies.

§141.05 Fluoridation of Municipal Water Supply.

The municipal water supply shall be fluoridated in the following manner: A fluoride compound shall be added to the drinking water supply at an optimum concentration of about 1.0 ppm of the fluoride ion, provided, however, the concentration of such ion shall not exceed 1.5 ppm at any time.

§141.07 Building Drinking Water Storage Tanks.

- (a) *Applicability.* The owner, agent or other person in control of a building which has one or more water tanks used to store potable water which is distributed as part of the building's drinking water supply system shall comply with the provisions of this section. This section does not apply to the domestic hot water system.
- (b) *Inspection Requirements.* The owner, agent or other person in control of a building shall have the water tank inspected at least once annually. The inspection shall include the examination of the general condition and integrity of the tank, including but not limited to the condition of overflow pipes, access ladders, air vents, roof access hatches and screens. The water tank shall be inspected for evidence of pitting, scaling, blistering or chalking, rusting, corrosion and leakage. Inspection of sanitary conditions, including the presence of sediment, biological growth, floatable debris and insects in the tank and rodent or bird activity on and around the tank, shall be performed. The inspection shall include sampling of the water in the water tank to verify the bacteriological quality of the water supply in compliance with Subpart 5-1 of the State Sanitary Code. Sample results shall be reported by a State certified laboratory equipped to analyze drinking water, in accordance with the latest edition of the Standard Methods for the Examination of Water and Wastewater, published jointly by the APHA, the AWWA and the WEF.

- (c) *Reporting and Record Keeping.* A written report documenting the results of such inspection shall be maintained by the owner, agent or other person in control of a building for at least 5 (five) years from the date of the inspection and such reports shall be made available to the Department upon request within 5 (five) business days. The inspection report shall state whether or not all applicable requirements were met at the time of inspection and provide a description of any non-compliance with those requirements.
- (d) *Public Notice.* The owner, agent or other person in control of a building shall post in an easily accessible location to residents in each building served by a potable water tank a notice that inspection results are available upon request. The notice must be placed in a frame with a transparent cover. The public notice shall include the name, address, and phone number where inspection results can be requested. Upon receipt of a request, the owner or manager shall make a copy of the inspection results available within 5 (five) business days.
- (e) *Corrective Actions.* When an inspection identifies any unsanitary condition, the owner, agent or other person in control of a building shall take the necessary steps to immediately correct the condition. If water sampling analysis of the water tank finds noncompliance with the bacteriological quality standards as provided in Subpart 5-1 of the State Sanitary Code, this condition shall be reported to the Department within 24 hours. If it is found that the quality of such water is attributed to the sanitary condition of the water tank, the owner, agent or other person in control of a building shall clean the tank in accordance with section §141.09 of this Article. A water tank shall be cleaned whenever directed by the Department to correct an unsanitary condition.
- (f) *Enforcement.* If an inspection report required by subdivision (b) of this section is not submitted to the Department when requested, such failure to submit shall be considered prima facie evidence that no inspection was conducted for the time period in question. A separate violation shall be issued for each year for which a required inspection report was not submitted to the Department when requested.

§141.09 Building Water Tank Cleaning, Painting and Coating.

- (a) *Applicability.* The owner, agent, or other person in control of a building which has one or more water tanks as part of its drinking water supply system shall comply with the provisions of this section.
- (b) *Qualification.* No person or entity shall engage or hold themselves out as engaging in the business of cleaning, painting or coating of a water tank of any kind that is part of a building's drinking water supply system without holding a valid permit issued by the Commissioner, unless:
 - (1) that person is a licensed master plumber, as defined in section 141.01, or
 - (2) that entity is a corporation or partnership in which one of the officers or partners has the qualifications required by subdivision (b)(1) above.
- (c) *Cleaning, Painting or Coating Requirements.* Water tanks that are a part of a building's drinking water supply system shall be cleaned, painted and coated in accordance with the applicable provisions of the Administrative Code of the City of New York, the State Sanitary Code Part 5-1 and applicable industry standards and recommendations including, but not limited to, AWWA, NSF/ANSI, or other national standards developed by ANSI-accredited organizations. All products related to work performed shall be certified by ANSI-accredited organizations. No paint containing lead in any form or in

any amount shall be used on the inside of a water tank. When a tank is cleaned, painted or coated, the water supply connections to and from the tank shall be disconnected or effectively plugged to prevent foreign matter from entering the distribution piping.

- (d) *Disinfection.* All water, dirt, and foreign material accumulated during the cleaning and/or painting process shall be discharged from the tank. The tank shall then be disinfected in accordance with the applicable provisions of the Administrative Code of the City of New York and industry standards and recommendations including, but not limited to, AWWA, NSF/ANSI, or other national standards developed by ANSI-accredited organizations. All products related to work performed shall be certified by ANSI-accredited organizations. The drinking water supply tank shall be completely drained and flushed with potable water before refilling for use.
- (e) *Sampling.* After painting or treating the interior of the tank, a water sample will be taken to ensure volatile organic compounds are not found at levels greater than that allowed by Subpart 5-1 of the State Sanitary Code. Sample results shall be reported by a State certified laboratory equipped to analyze drinking water, in accordance with the latest edition of the Standard Methods for the Examination of Water and Wastewater, published jointly by the APHA, the AWWA and the WEF.
- (f) *Record Keeping.* A record of the date, address and work performed including a list of the cleaning, paints, coating and disinfection products used shall be maintained by the owner, agent or other person in control of a building for at least 5 (five) years from the date of the completed work and such records shall be made available to the Department upon request within 5 (five) business days.

§141.11 Chemical Treatment of Building Drinking Water.

- (a) *Applicability.* The provisions of this section shall apply to any person proposing to, or engaging in the business of chemical treatment of the drinking water supply system within a building. No owner, agent or other person in control of a building shall add any chemical or other substance to the drinking water supply unless such addition is performed by the holder of a permit issued by the Department. The provisions of this section do not apply to the treatment by addition of chemicals to water not intended for human consumption, however whenever such water is treated, all necessary precautions shall be taken to prevent the treated non-potable water from coming into contact with or contaminating a potable drinking water supply system, including through an accidental inter-connection or cross-connection.
- (b) *Certification.* A permit to treat water chemically in a building shall be issued only for anti-corrosion, anti-scaling or disinfection purposes. Such permit shall be issued to:
 - (1) A person who has a degree with a major in chemistry, chemical engineering, or sanitary engineering from a college or university approved by the Board of Regents of the University of the State of New York and who has at least 5 (five) years experience in the chemistry of water or in closely related work or a water treatment plant operator with a certification issued by the State under Subpart 5-4 of the State Sanitary Code or an equivalent license or certification acceptable to the Department for the appropriate treatment types; or,
 - (2) A corporation or partnership in which one of the officers or partners has the qualifications required by subdivision (b)(1) of this section and is engaged in the full time supervision of all operations involving the addition of chemicals to drinking water for potable purposes.

- (c) *Operators Requirement.* The actual addition of chemicals shall be performed only by the permittee or by a representative who is under the direct supervision of the permittee. All personnel involved in the addition of chemicals to the drinking water supply shall have successfully completed the appropriate course approved by the State under Subpart 5-4 of the State Sanitary Code, based on the system treatment complexity, flow and/or service population.
- (d) *Product Standards.* The only chemicals, drinking water additives, treatment devices or equipment that may come in direct contact with drinking water for potable purposes must be in compliance with Subpart 5-1 of the State Sanitary Code, applicable industry standards and recommendations including, but not limited to, AWWA and NSF/ANSI 60 Drinking Water Treatment Chemicals-Health Effects and NSF/ANSI 61 Drinking Water System Components-Health Effects
- (e) *Cross Connection Control.* To prevent the treated water from entering the municipal water supply system, cross connection control prevention shall be provided by installing a State-approved RPZ (Reduced Pressure Zone) Backflow Prevention Device on the potable water service connection to the building.
- (f) *Design, Installation and Maintenance.* The system used to chemically treat the water shall be designed, installed and maintained in accordance with the manufacturer's specifications and applicable industry standards to ensure proper chemical dosage and operation. The system shall be tamper proof. Maximum feed pump capacity shall be adjusted to prevent any overfeed of chemicals above recommended levels. The installation of the device shall be such as to prevent the back-siphoning of chemicals. Sampling taps shall be provided both upstream and down stream of the chemical addition point in order to ensure representative samples.
- (g) *Sampling.* Prior to placing the system in operation, the permittee shall confirm that the drinking water supply, after being chemically treated, complies with Subpart 5-1 of the State Sanitary Code. Once the system is operational, the permittee shall take monthly samples of the treated water, to ensure compliance with applicable sections of Subpart 5-1 of the State Sanitary Code. A permittee shall maintain or retain the services of a State certified laboratory equipped to analyze drinking water, in accordance with the latest edition of the Standard Methods for the Examination of Water and Wastewater, published jointly by the APHA, the AWWA and the WEF. Records of water sampling and analysis shall be maintained on file by the permittee for at least 5 (five) years and made available to the Department upon request within 5 (five) business days.
- (h) *Water Quality.* A permittee who is operating and/or maintaining a system under this section shall ensure that the system used to chemically treat the water meets the requirements of the State Sanitary Code, Subpart 5-1 relating to Public Water Systems and applicable industry standards and recommendations including, but not limited to, AWWA, NSF/ANSI, or other national standards developed by ANSI-accredited organizations. All products related to work performed shall be certified by ANSI-accredited organizations. The health effects and the maximum dosage shall be monitored and maintained within limits set by the approved product.
- (i) *Maintenance Record Keeping.* All personnel who work or maintain the chemical addition device, shall keep records showing the dates and times of service and the amount of each chemical applied to the drinking water supply being treated. Such records shall be

maintained on file for at least 5 (five) years and made available to the Department upon request within 5 (five) business days.

- (j) *Chemical Storage.* All chemicals shall be kept only in the original sealable container provided by the supplier and in a secured area without public access acceptable to the Department. Such containers shall be clearly marked to indicate that their contents are to be used only for the treatment of the drinking water supply.
- (k) *Termination of Treatment.* When a device is no longer in service, the owner, agent or other person in charge of the building in which it is installed shall cause the device to be completely disconnected from the water supply system and all openings shall be properly sealed.
- (l) *Reporting.*
 - (1) *System Installation and/or Termination.* Within 24 hours after the installation and commencement of treatment or termination of a system, the permittee shall report to the Department the following information:
 - (A) The owner, name, address, and description of the premises where the device is located;
 - (B) The date the device was installed and/or terminated and the approval date for the device;
 - (C) The chemicals to be used with the device; and,
 - (D) The name and address of the permittee.
 - (2) *Water Quality.* When the water quality exceeds the standards as defined under subdivision (h) of this section, the permittee shall provide a report to the Department within 24 hours analyzing the cause of the water quality exceedance and any corrective actions that were taken.

§141.13 Bottled Water.

- (a) *Applicability.* No person shall import, manufacture or bottle water for human consumption in bottles or containers for sale or distribution in New York City without a valid permit issued by the State Department of Health and such bottles or containers shall be stamped with a State certification number to distribute bottled water. The requirements of Subpart 5-6 of the State Sanitary Code shall apply to bottled water produced, used, distributed and/or sold in New York City.
- (b) *Bottled Water Standards.* Bottled drinking water shall meet the bacteriological, chemical and physical water quality standards as prescribed by Section 5-6.10 of Subpart 5-6 of the State Sanitary Code.
- (c) *Enforcement.* When the Department finds that bottled water does not comply with the standards promulgated by the State Department of Health, the Department may order said source to discontinue distribution. Such bottled water shall remain out of distribution until compliance with all the applicable standards can be demonstrated to the satisfaction of the Department. The unacceptable product may be embargoed, recalled and/or destroyed pursuant to the provisions of this Code.

§141.15 Hauling Bulk Water.

- (a) *Applicability.* No person shall import into, sell or transport from one area to another in New York City water intended for public potable use via tanker truck or equivalent means for the purpose of treatment, packaging, or human consumption without a permit issued by the State Department of Health. The requirements of Subpart 5-6 of the State

Sanitary Code shall apply to bulk water produced, used, distributed and/or sold in New York City.

- (b) *Water Quality Standards.* All bulk water shall meet, when delivered, the bacteriological, chemical and physical water quality standards as prescribed by Section 5-6.10 (Maximum contaminant levels) of Subpart 5-6 of the State Sanitary Code.
- (c) *Enforcement.* When the Department finds that bulk water does not comply with the standards promulgated by the State, the Department may order said source to discontinue transportation and distribution. Such bulk water shall remain out of transportation or distribution until compliance with all applicable standards can be demonstrated to the satisfaction of the Department. The unacceptable product may be embargoed, recalled and/or destroyed pursuant to the provisions of this Code.

§141.17 Groundwater Wells.

- (a) *Applicability.* No owner, person, corporation, well driller or partnership shall engage in the installation, drilling, replacement or operation of a water well, water well pump or well pumping equipment as appurtenances supplying water to any building in New York City for water supply purposes without a permit issued by the Department.
- (b) *Well Categories and Water Quality Standards.*
 - (1) *Potable Wells.* Potable well water used for drinking purposes shall meet the bacteriological, chemical and physical water quality standards as prescribed by the State Sanitary Code, Subpart 5-1. No well permit shall be issued for drinking water purposes unless the applicant can establish to the Department's satisfaction that the municipal water supply is not accessible.
 - (2) *Non-Potable Wells.* Non-potable well water used for purposes other than drinking shall meet the following water quality standards:
 - (A) Microbiological Standards: Not to exceed 200 Fecal Coliform per 100ml.
 - (B) All Other Pollutants: Not to exceed any limitation set by the New York City Department of Environmental Protection. The presence of any other substance shall be evaluated as a potential public health hazard to be determined by the Department.
- (c) *Application Requirements.* No person shall construct or operate a water well without prior construction authorization and a permit issued by the Department. The application shall include the appropriate fees, application forms and other supplemental information as required by the Department.
- (d) *Construction Standards.* No person shall construct or abandon any water well without a permit issued by the Department in accordance with Section 5-2.4 of the State Sanitary Code, nor shall any person use any water well except in accordance with the State Sanitary Code, Subparts 5-1, 5-2 and associated appendices (Appendix 5-A through 5-D). Applicable industry standards and recommendations including, but not limited to, AWWA, NSF/ANSI, or other national standards developed by ANSI-accredited organizations shall apply to wells constructed in New York City. Well water shall not be used for a purpose other than that stated on the permit. The well water supply system shall be free from cross connections as set forth in Section 5-1.31 of the State Sanitary Code and in accordance with the applicable provisions of the Administrative Code of the City of New York.

- (e) *Driller Qualifications.* No person shall drill, construct or abandon a well without first registering with the New York State Department of Environmental Conservation pursuant to New York State Environmental Conservation Law §15-1525.
- (f) *Signage.* On each pump, tap and outlet connected to a well whose water is not approved for drinking water, a weather-proof sign with the words: "Danger—WATER UNSAFE— This well water is NOT to be used for drinking or domestic purposes." shall be clearly, legibly and prominently displayed. Every pipe and fitting linked to the non-potable water supply system shall be properly identified to prevent any possible cross connection with the drinking water system or the municipal water supply system.
- (g) *Well Decommissioning and Abandonment.* If a water well is to be sealed or closed, the owner of the property shall make application of notification to the Department on a form prescribed by the Department. Every decommissioned or abandoned groundwater well shall be sealed or closed so as to protect the aquifer from pollution or contamination, and to prevent a hazard to life or property. The Department may require abandonment of any well which it deems to be contaminated or damaged or which has been constructed or operated improperly.
- (h) *Potable Well Water Standards and Disinfection.* A permit to use well water shall not be issued unless the water meets the bacteriological, chemical and physical water quality standards as prescribed by the State Sanitary Code Subpart 5-1. When the Department finds that a well does not comply with the State Sanitary Code or for other reasons, the Department may order such well to discontinue operations; such well shall remain out of service until compliance with appropriate standards can be demonstrated to the satisfaction of the Department. The owner, operator or permittee of a potable well requiring treatment to meet drinking water quality standards shall have the treatment plan approved by the Department, and shall complete acceptable water quality testing by a State certified laboratory to demonstrate compliance with appropriate standards, including those as required in Subpart 5-1 of the State Sanitary Code.

§141.19 Modification.

When the strict application of any provision of this Article presents practical difficulties or unusual hardships, the Commissioner, in a specific instance, may modify the application of such provision consistent with the general purpose of this Article and upon such condition as, in his or her opinion are necessary to protect life and health. The denial by the Commissioner of a request for modification may be appealed to the Board in the manner provided pursuant to § 5.21 or successor rule.