State of Connecticut
Regulation of
Department of Public Health
Concerning
PUBLIC DRINKING WATER QUALITY STANDARDS

Section 1. Section 19-13-B102(a) of the Regulations of Connecticut State Agencies is amended to read as follows:

(a) **Definitions.** As used in this section:

(1) "Action level" means the concentration of lead or copper in water specified in subsection (j)(6)(B) of this section which determines, in some cases, the treatment requirements contained in subsection (j)(6) of this section that a system is required to complete;

(2) "Active source of supply" means all springs, streams, watercourses, brooks, rivers, lakes, ponds, wells, or underground water from which water is taken on a regular or periodic basis for water supply purposes. A number of wells drawing water from a single aquifer or more than 1 surface water body or a combination of surface water and ground water sources connected to a common distribution system may be considered a single source of supply;

(3) "Analyte" shall have the same meaning as provided in section 19a-29a of the Connecticut General Statutes;

[(3)] (4) "Annual average" means the arithmetic average of the quarterly averages of 4 consecutive quarters of monitoring;

[(4)] (5) "Bag filters" means pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media and are typically constructed of a non-rigid, fabric filtration media housed in a pressure vessel in which the direction of flow is from the inside of the bag to the outside;

[(5)] (6) "Bank filtration" means a water treatment process that uses a well to recover surface water that has naturally infiltrated into ground water through a river bed or bank(s). Infiltration is typically enhanced by the hydraulic gradient imposed by a nearby pumping water supply or other well(s);

[(6)] (7) "Cartridge filters" means pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media and are typically constructed as rigid or semi-rigid, self-supporting filter elements housed in pressure vessels in which flow is from the outside of the cartridge to the inside;

[(7)] ["CFR" means Code of Federal Regulations;]

(8) "Certified distribution system operator" means an operator who has met the education, experience, and examination requirements specified in section 25-32-11 of the Regulations of Connecticut State Agencies and has been certified by the department;

(9) "Certified operator" means an operator who has met the education, experience, and examination requirements specified in sections 25-32-7a to 25-32-14, inclusive, of the Regulations of Connecticut State Agencies and has been certified by the department;

(10) "Certified water treatment plant operator" means an operator who has met the education, experience, and examination requirements of section 25-32-9 of the Regulations of Connecticut State Agencies and has been certified by the department;

(11) "CFR" means Code of Federal Regulations;

(12) "Clean compliance history" means a record of no maximum contaminant level violations under subsection (e)(7) of this section, no monitoring violations under subsection (x) of this section, and no coliform treatment technique trigger exceedances or treatment technique violations under subsection (x) of this section;

[(11)] (13) "Coagulation" means a process using coagulant chemicals and mixing by which colloidal and suspended materials are destabilized and agglomerated into flocs;

[(12)] (14) "Coliform" means a group of bacteria found in the intestines of warm-blooded animals (including humans) and found in plants, soil, air, and water;

[(13)] (15) "Combined distribution system" means the interconnected distribution system consisting of the distribution systems of wholesale systems and of the consecutive public water systems that receive finished water;

[(14)] (16) "Community water system" or "CWS" means a public water system that regularly serves at least 25 year-round residents;

[(15)] ["Compliance period" means a 3 calendar-year period within a compliance cycle. Each compliance cycle has 3 3-year compliance periods;]

[(16)] (17) "Compliance cycle" means the 9 calendar-year cycle during which public water systems shall monitor. Each compliance cycle consists of 3 3-year compliance periods. The first calendar year cycle began on January 1, 1993 and ended on December 31, 2001; [the second began on January 1, 2002 and ended on December 31, 2010; the third began on January 1, 2011 and ends on December 31, 2019;]

(18) "Compliance period" means a 3 calendar-year period within a compliance cycle;

[(17)] (19) "Comprehensive performance evaluation" or "CPE" means a thorough review and analysis of a treatment plant's performance-based capabilities and associated administrative, operation and maintenance practices. It is conducted to identify factors that may be adversely impacting a plant's capability to achieve compliance and emphasizes approaches that can be implemented without significant capital improvements. The comprehensive performance evaluation shall comprise of a written report consisting of at least the following components:

(A) Assessment of plant performance;

(B) Evaluation of major unit processes;

(C) Identification and prioritization of performance limiting factors;

(D) Assessment of the applicability of comprehensive technical assistance;

(E) Identification of improvements selected by a public water system to enhance the treatment plant's capability to achieve compliance; and

(F) A schedule of dates for the implementation of the improvements;

[(18)] (20) "Comprehensive technical assistance" means a performance improvement phase that is implemented using results from the comprehensive performance evaluation;

[(19)] (21) "Confluent growth" means a continuous bacterial growth covering the entire filtration area of a membrane filter, or a portion thereof, in which bacterial colonies are not discrete;

[(20)] (22) "Consecutive public water system" or "consecutive system" means a public water system that receives some or all of its finished water from 1 or more wholesale systems. Delivery may be through a direct connection or through the distribution system of 1 or more consecutive public water systems;

[(21)] (23) "Consultation" means a telephone call, electronic mail exchange or meeting at which the public water system reports to the department the nature of the violation and the department, in turn, determines the action that shall be taken by the public water system;

[(22)] (24) "Consumer" [has] shall have the same meaning as provided in section 25-32a of the Connecticut General Statutes;

[(23)] (25) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water;

[(24)] (26) "Conventional filtration treatment" means a series of processes including coagulation, flocculation, sedimentation or dissolved air flotation, and filtration resulting in substantial particulate removal;

[(25)] (27) "Corrosion inhibitor" means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials;

[(26)] (28) "Cryptosporidium" means a protozoan found in the intestines of livestock and in water contaminated by sewage or runoff containing animal waste;

[(27)] (29) "CT" or "CTcalc" means the product of the "residual disinfectant concentration" (C) in milligrams per liter determined before or at the first consumer, and the corresponding "disinfectant contact time" (T) in minutes (i.e., "C" X "T"). If a public water system applies disinfectants at more than 1 point prior to the first consumer, it shall determine the CT of each disinfectant sequence before or at the first consumer to determine the total percent inactivation;

[(28)] (30) "$CT_{99.9}$" means the CT value required for 99.9 percent (3 log) inactivation of Giardia lamblia cysts;

[(29)] (31) "Department" means the Department of Public Health;

[(30)] (32) "Diatomaceous earth filtration" means a process resulting in substantial particulate removal in which a pre-coat cake of diatomaceous earth filter media is deposited on a support membrane (septum), and while the water is filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the filter cake;

[(31)] (33) "Direct filtration" means a series of processes including coagulation and filtration, but excluding sedimentation, resulting in substantial particulate removal;

[(32)] (34) "Direct integrity test" means a physical test applied to a membrane filtration unit in order to identify and isolate integrity breaches (i.e., 1 or more leaks that could result in contamination of the filtrate);

[(33)] (35) "Disinfectant contact time" ("T" in CTcalc) means the time in minutes that it takes for water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point before or at the point where residual disinfectant concentration ("C") is measured;

(A) Where only 1 "C" is measured (single application point), "T" is the time in minutes that it takes for water to move from the point of disinfectant application to a point before or at which residual disinfectant concentration ("C") is measured;

(B) Where more than 1 "C" is measured (multiple application points), "T" is:

(i) For the first measurement of "C", the time in minutes that it takes for water to move from the first point of disinfectant application to a point before or at the point where the first "C" is measured; and

(ii) For subsequent measurements of "C", the time in minutes that it takes for water to move from the previous "C" measurement point to the "C" measurement point for which the subsequent "T" is being calculated;

(C) Disinfectant contact time in pipelines shall be calculated based on plug flow by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe; and

(D) Disinfectant contact time within mixing basins, clearwells, and storage reservoirs shall be determined by tracer studies or an equivalent demonstration;

[(34)] (36) "Disinfection" means a process which inactivates microbial pathogens in water by chemical oxidants or equivalent agents;

[(35)] (37) "Disinfection profile" means a summary of daily giardia lamblia inactivation through the treatment plant;

[(36)] (38) "Distribution system" means any combination of pipes, tanks, pumps, or similar devices or mechanisms that deliver water from the sources, treatment facilities or storage facilities to the consumer;

[(37)] (39) "Domestic or other non-distribution system plumbing problem" means a coliform contamination problem in a public water system with more than 1 service connection that is limited to the specific service connection from which the coliform-positive sample was taken;

[(38)] (40) "Dose equivalent" means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness due to the type of radiation and its distribution in the body as specified by the International Commission on Radiation Units and Measurements;

[(39)] (41) "Drinking water" means water, treated or untreated, intended for human [use and] consumption, [including, but not limited to,] which includes drinking, bathing, showering, cooking, dishwashing and maintaining oral hygiene;

[(40)] (42) "Dual sample set" means a set of 2 samples collected at the same time and same location, with 1 sample analyzed for total trihalomethanes (TTHM) and the other sample analyzed for total haloacetic acids (HAA5);

[(41)] (43) "EC medium plus MUG" means analytical tests for waterborne bacteria as specified in 40 CFR 141.21(f), as amended from time to time;

[(42)] (44) "E. coli" or "Escherichia coli" means a species of fecal coliform that thrives at the body temperature of mammals;

[(43)] (45) "End of the distribution system" means the last service connection on a dead-end water main;

[(44)] (46) "Enhanced coagulation" means the addition of sufficient coagulant for improved removal of disinfection byproduct precursors by conventional filtration treatment;

[(45)] (47) "Enhanced softening" means the improved removal of disinfection byproduct precursors by precipitative softening;

[(46)] (48) "EPA" means the United States Environmental Protection Agency;

[(47)] (49) "Fecal coliform" means bacteria that grows in the colon of mammals and is transmitted through fecal material;

[(48)] (50) "Filter profile" means a graphical representation of individual filter performance, based on continuous turbidity measurements or total particle counts versus time for an entire filter run, from startup to backwash inclusively, that includes an assessment of filter performance while another filter is being backwashed;

[(49)] (51) "Filtration" means a process for removing particulate matter from water by passage through porous media;

[(50)] (52) "Finished water" means water that is introduced into the distribution system of a public water system and is intended for distribution and consumption without further treatment, except as treatment is necessary to maintain water quality in the distribution system (e.g., booster disinfection, addition of corrosion control chemicals);

[(51)] (53) "First-draw sample" means a 1-liter sample of tap water, collected in accordance with subsection (e)(8)(B)(ii) of this section, that has been standing in plumbing pipes at least 6 hours and is collected without flushing the tap;

[(52)] (54) "Flocculation" means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means;

[(53)] (55) "Flowing stream" means a course of running water flowing in a definite channel;

[(54)] (56) "GAC10" means granular activated carbon filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days, except that the reactivation frequency for GAC10 used as a best available technology for compliance with the MCLs under subsection (e)(11)(B)(i) of this section is 120 days;

[(55)] (57) "GAC20" means granular activated carbon filter beds with an empty-bed contact time of 20 minutes based on average daily flow and a carbon reactivation frequency of every 240 days;

[(56)] (58) "Gross alpha particle activity" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample;

[(57)] (59) "Gross beta particle activity" means the total radioactivity due to beta particle emissions as inferred from measurements on a dry sample;

[(58)] (60) "Ground water" means the supply of source water under the earth's surface that is not under the influence of surface water;

[(59)] (61) "Ground water system" means a public water system that provides ground water, in whole or part, directly to consumers but does not include a public water system that combines ground water with surface water prior to treatment or ground water under the direct influence of surface water;

[(60)] (62) "Ground water under the direct influence of surface water" or "GWUDI" means any water beneath the surface of the ground with either a significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as giardia lamblia or Cryptosporidium, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions. The department determination of direct influence may be based on site-specific measurements of water quality or documentation of well construction characteristics and geology, or both, which may include a field evaluation;

[(61)] (63) "Haloacetic acid five" or "HAA5" means the sum of the concentrations in milligrams per liter of the haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to 2 significant figures;

[(62)] (64) "Hydrogeologic sensitivity assessment" or "HSA" means the department's act of making a determination of whether a ground water system obtains water from hydrogeologically sensitive settings taking into account information regarding the specific aquifer from which the system is drawing water, well construction records, characterization of the hydrogeology of the source aquifer, and whether the aquifer has a hydrogeologic barrier that would prevent the vertical movement of microbial pathogens from the surface into the aquifer;

[(63)] (65) "Lake" means a natural or man-made basin or hollow on the earth's surface, including a reservoir, in which water collects or is stored that may or may not have a current or single direction of flow;

[(64)] (66) "Large", when used in reference to a public water system, means serving more than 50,000 persons;

[(65)] (67) "Lead service line" means a service line made of lead that connects the water main to a building inlet and any lead pigtail, gooseneck or other fitting connected to such lead line;

[(66)] (68) "Legionella" means a genus of bacteria, some species of which have caused a type of pneumonia called legionnaires' disease;

(69) "Level 1 assessment" means an evaluation conducted pursuant to subsection (x) of this section by a public water system or the department, if the department elects to conduct the evaluation, to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and, when possible, the likely reason that the public water system triggered the evaluation;

(70) "Level 2 assessment" means an evaluation conducted pursuant to subsection (x) of this

section by a level 2 assessor or the department, if the department elects to conduct the evaluation, to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and, when possible, the likely reason that the public water system triggered the evaluation;

(71) "Level 2 assessor" means a professional civil or environmental engineer licensed in accordance with chapter 391 of the Connecticut General Statutes with knowledge of the regulation of public water systems in the state of Connecticut, a certified distribution system operator that is certified at the classification level equal to or higher than the classification level for the distribution system at the public water system at which the assessment is being conducted, or a certified water treatment plant operator that is certified at the classification level equal to or higher than the classification level for the water treatment plant at the public water system at which the assessment is being conducted who shall:

(A) Have successfully completed a 6 hour level 2 assessment training provided by the Department of Public Health prior to conducting a level 2 assessment; and

(B) Not be an employee of the public water system at which the assessment is being conducted;

[(67)] (72) "Local director of health" means a city, town, borough, or district director of health or the director of health's authorized agent;

[(68)] (73) "Locational running annual average" or "LRAA" means the average of sample analytical results for samples taken at a particular monitoring location during the previous 4 calendar quarters;

[(69)] ["mg/l" means milligrams per liter;]

[(70)] (73) "Man-made beta particles and photon emitters" means all radionuclides emitting beta particles or photons, or both, listed in Maximum Permissible Body Burdens and Maximum Concentrations of Radionuclides in Air or Water for Occupational Exposure, National Bureau of Standards Handbook 69, except the daughter products of thorium-232, uranium-235 and uranium-238;

[(71)] (74) "Maximum contaminant level" or "MCL" means the maximum permissible level of a contaminant in water that is delivered to any consumer of a public water system;

[(72)] (75) "Maximum contaminant level goal" or "MCLG" means the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur; and which allows an adequate margin of safety. Maximum contaminant level goals are non-enforceable health goals;

[(73)] (76) "Maximum residual disinfectant level" or "MRDL" means a level of a disinfectant added for water treatment that shall not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. MRDL is enforceable in the same manner as maximum contaminant level;

[(74)] (77) "Maximum residual disinfectant level goal" or "MRDLG" means the maximum level of a disinfectant added for water treatment at which no known or anticipated adverse effect on the health of persons would occur, and which allows an adequate margin of safety. MRDLG is a non-enforceable health goal and does not reflect the benefit of the addition of the chemical for control of waterborne microbial contaminants;

[(75)] (78) "Medium-size" means serving more than 3,300 and less than or equal to 50,000 persons;

[(76)] (79) "Membrane filtration" means a pressure or vacuum driven separation process in which particulate matter larger than 1 micrometer is rejected by an engineered barrier, primarily through a size-exclusion mechanism, and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test. This definition includes the common membrane technologies of microfiltration, ultrafiltration, nanofiltration, and reverse osmosis;

[(77)] (80) "Method detection limit" or "MDL" means the minimum concentration of a substance

that can be measured and reported with 99 percent confidence that the true value is greater than 0;

(81) "mg/l" means milligrams per liter;

[(78)] (82) "Microbial pathogen" means a microorganism, such as a bacterium, virus or parasite, that can cause infection and illness in humans, including, but not limited to: Echovirus, Coxsackie viruses, Hepatitis A and E, Rotavirus, Norovirus, E. coli, Salmonella species, Shigella species, and Vibrio cholerae;

[(79)] (83) "Molecular Weight Cutoff" or "MWCO" means a measure of the removal characteristic of a membrane in terms of atomic weight or mass, as opposed to pore size, that is typically measured in terms of Daltons;

[(80)] (84) "Near the first service connection" means at 1 of the 20 percent of all service connections in the entire system that are nearest the water supply treatment facility, as measured by water transport time within the distribution system;

[(81)] (85) "Non-community water system" means a public water system that serves at least 25 persons at least 60 days out of the year and is not a community water system;

[(82)] (86) "Non-transient non-community water system" or "NTNC" means a public water system that is not a community system and that regularly serves at least 25 of the same persons over 6 months per year;

[(83)] (87) "Notification level" means the level of a contaminant that if exceeded shall require public notification by a public water system to its consumers;

[(84)] (88) "Optimal corrosion control treatment" means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps while ensuring that the treatment does not cause the community water system or non-transient non-community water system to violate any drinking water statutes or regulations;

[(85)] (89) "Picocurie" or "pCi" means the quantity of radioactive material producing 2.22 nuclear transformations per minute;

[(86)] (90) "Physical parameters" means color, turbidity, pH, and odor;

(91) "Physical parameter level goal" means the level or range for physical parameters recommended by the Department of Public Health;

[(87)] (92) "Plant intake" means the works or structures at the head of a conduit through which water is diverted from a source (e.g., river or lake) into the treatment plant;

[(88)] (93) "Point of disinfectant application" means the point where the disinfectant is applied and water downstream of that point is not subject to recontamination by surface water;

[(89)] (94) "Point of entry" or "entry point" means a location on an active source of supply that is after any treatment and before the entrance to the distribution system;

[(90)] (95) "Practical quantification level" or "PQL" means the lowest concentration that can be reliably measured within specific limits of precision and accuracy during routine laboratory operating conditions;

[(91)] (96) "Presedimentation" means a preliminary treatment process used to remove gravel, sand and other particulate material from the source water through settling before the water enters the primary clarification and filtration processes in a treatment plant;

[(92)] (97) "Public water system" or "system" means any water company supplying drinking water to 15 or more consumers or 25 or more persons, based on the "Design Population" as defined in section 16-262m-8(a)(3) of the Regulations of Connecticut State Agencies, [jointly administered by the department and the Public Utilities Regulatory Authority,] daily at least 60 days of the year that does not meet all of the following conditions:

(A) Consists only of distribution and storage facilities;

(B) Does not have any treatment facilities, other than those for non-potable use;

(C) Obtains all of its water from, but is not owned or operated by, a public water system;

(D) Does not separately bill the consumers for water use or consumption; and

(E) Is not a carrier which conveys passengers in interstate commerce;

[(93)] (98) "Raw water" means water in its natural state on the surface of the earth or underground;

[(94)] (99) "Repeat sample" means a sample that is collected as a result of a total coliform-positive routine sample;

[(95)] (100) "Reservoir" means a natural or man-made basin or hollow on the earth's surface, including a lake, in which water collects or is stored that may or may not have a current or single direction of flow;

[(96)] (101) "Residual disinfectant concentration" or "RDC" ("C" in CTcalc) means the concentration of disinfectant measured in mg/l in a representative sample of water;

[(97)] (102) "Routine sample" means a sample that is collected at a location and frequency as specified in [the department-approved] a system's sample siting plan;

[(98)] (103) "Sanitarian" means a person who is trained in environmental health and who is qualified to carry out educational and investigational duties in the fields of environmental health such as investigation of air, water, sewage, foodstuffs, housing and refuse by observing, sampling, testing and reporting; and who is licensed pursuant to section 20-361 of the Connecticut General Statutes;

(104) "Sanitary defect" means a defect that is providing, or has the potential for providing, a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place;

[(99)] (105) "Sanitary survey" means a review of a public water system by the department to evaluate the adequacy of the system, its sources and operations and the distribution of safe drinking water;

(106) "Seasonal system" means a non-community water system that is not operated as a public water system on a year-round basis and starts up at the beginning of each operating season and shuts down by depressurizing and dewatering all or a portion of its distribution system at the end of each operating season;

[(100)] (107) "Sedimentation" means a process for removal of solids before filtration by gravity or separation;

[(101)] (108) "Self assessment" means an assessment which shall comprise a written report consisting of at least the following components:

(A) Assessment of filter performance;

(B) Development of a filter profile;

(C) Identification and prioritization of factors limiting filter performance;

(D) Assessment of the applicability of improvements;

(E) Identification of improvements selected by a public water system to enhance filtration and achieve compliance; and

(F) A schedule of dates for the implementation of the improvements;

[(102)] (109) "Service line sample" means a 1 liter sample of water, collected in accordance with subsection (e)(8)(B)(iii) of this section, that has been standing for at least 6 hours in a service line;

[(103)] (110) "Significant change to disinfection practice" means 1 of the following changes:

(A) Changes to the point of disinfection;

(B) Changes to the disinfectant(s) used in the treatment plant;

(C) Changes to the disinfection process; or

(D) Any other modification identified by the department that has or may have a significant impact on disinfection practices or the effectiveness of such practices, or both;

[(104)] (111) "Significant deficiency" means any situation, practice, or condition in a public water system with respect to design, operation, maintenance, or administration that the department determines to be causing, or has the potential for causing, risks to health or safety of the public served

by the system. Significant deficiencies shall include, but are not limited to, defects in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, including violations of subsection (j)(2) of this section, storage, or distribution system that the department determines to be causing, or has the potential for causing, the introduction of fecal contamination into the water delivered to consumers;

[(105)] (112) "Single family structure" means a building constructed as a single-family residence that is currently used as either a residence or a place of business;

[(106)] (113) "Slow sand filtration" means a process involving passage of raw water through a bed of sand at low velocity (generally less than 0.16 gallons per minute per square foot[,]), resulting in substantial particulate removal by physical and biological mechanisms;

[(107)] (114) "Small" means serving 3,300 persons or fewer;

[(108)] (115) "Source water" means raw water before any kind or type of treatment at the source of supply;

[(109)] (116) "Special purpose sample" means a sample that is taken

(A) to determine whether disinfection practices are sufficient following routine maintenance work, such as pipe placement, replacement, or repair, on the distribution system; or

(B) as part of a system's start up procedure under subsection (x) of this section and that is not collected in accordance with a system's sampling plan under subsection (x) of this section;

[(110)] (117) "Subpart H system" means a public water system that is supplied by a surface water or ground water under the direct influence of surface water source, or both;

[(111)] (118) "Surface water" means all water that is open to the atmosphere and subject to surface runoff;

[(112)] (119) "SUVA" means specific ultraviolet absorption at 254 nanometers (nm), an indicator of the humic content of water. 1 nm is equal to 1 billionth (10^{-9}) of a meter. It is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of 254 nm (UV254) (in m^{-1}) by its concentration of dissolved organic carbon (DOC) in mg/l;

[(113)] (120) "System with a single service connection" means a system that supplies drinking water to consumers via a single service line;

[(114)] (121) "Tier 1 notice" means a notice that a public water system is required to provide for the [following] violations and other situations in subparagraphs (A) through (G), inclusive, of this subdivision:

(A) Violation of the maximum contaminant level for total coliforms when fecal coliform or E. coli are present in the distribution system, [or] when the public water system fails to test for fecal coliforms or E. coli when any repeat sample tests positive for coliform, or violation of the maximum contaminant level for E. coli, as specified in subsection (e)(7)(I)(i) of this section;

(B) Violation of the maximum contaminant level for nitrate, nitrite, or total nitrate and nitrite, or when the public water system fails to take a confirmation sample not later than 24 hours after the public water system's receipt of the first sample showing an exceedance of the nitrate or nitrite maximum contaminant level;

(C) Violation of the maximum residual disinfectant level for chlorine dioxide when 1 or more samples taken in the distribution system the day following an exceedance of the maximum residual disinfectant level at the entrance of the distribution system exceed the maximum residual disinfectant level, or when the public water system does not take the required samples in the distribution system;

(D) Violation of the maximum contaminant level for turbidity as specified in subsections (e)(7)(H)(ii), [and] (j)(2)(D) and (j)(4) of this section, where the department determines after consultation with the public water system that the violation of the maximum contaminant level for turbidity combined with other site-specific information indicate that potential pathogens may have passed the point of entry to the distribution system, or where the public water system does not consult

with the department [within] not later than 24 hours after the public water system learns of the violation;

[(E)] [Violation of the maximum contaminant level for turbidity as specified in subsection (j)(4) of this section, where the department determines after consultation with the public water system that the violation of the maximum contaminant level for turbidity combined with other site-specific information indicate that potential pathogens may have passed the point of entry to the distribution system, or where the public water system does not consult with the department within 24 hours after the public water system learns of the violation;]

[(F)] (E) Occurrence of a waterborne disease outbreak, or other waterborne emergency, including, but not limited to, a failure or significant interruption in key water treatment processes, a natural disaster that disrupts the water supply or distribution system, or a chemical spill or unexpected loading of possible pathogens into the source water that significantly increases the potential for drinking water contamination;

[(G)] (F) [Detection] Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the department based on available scientific and epidemiological findings, and including, but not limited to, the detection of any chemical listed in subsections (e)(2) through (e)(4), inclusive, of this section at a level that is determined by the department based on available scientific and epidemiological findings to have serious adverse effects on human health as a result of short-term exposure [based on available scientific and epidemiological findings]; or

[(H)] (G) Detection of E. coli, enterococci, or coliphage in ground water source samples as specified in subsections (e)(12)(C) and (D) of this section.

[(115)] (122) "Tier 2 notice" means a notice that a public water system is required to provide for the [following] violations and other situations in subparagraphs (A) through (D), inclusive, of this subdivision:

(A) All violations of the maximum contaminant level, maximum residual disinfectant level or treatment technique requirements, except where a tier 1 notice is required [or where a unit or value requirement under subsection (e)(1) of this section for color, turbidity, odor, or pH is exceeding];

(B) Violations of monitoring and testing procedure requirements for [total coliforms, nitrate, nitrite, total nitrate and nitrite, or] chlorine dioxide, except where a tier 1 or a tier 3 notice is required;

(C) Failure to comply with the terms and conditions of any variance, order, consent order, consent agreement or exemption; or

(D) Failure to take corrective action or failure to maintain at least 4 log treatment of viruses using inactivation, removal, or a department-approved combination of 4 log virus inactivation and removal before or at the first consumer under subsections (e)(7)(E)(vi) or (j)(14) of this section.

[(116)] (123) "Tier 3 notice" means a notice that a public water system is required to provide for the [following] violations and other situations in subparagraphs (A) through (F), inclusive, of this subdivision:

(A) Violation of a monitoring requirement, except where a tier 1 notice or a tier 2 notice is required;

(B) Failure to comply with a testing procedure requirement, except where a tier 1 notice or a tier 2 notice is required;

(C) Operation under an administrative order, variance, or an exemption;

(D) Failure to provide the notice of the availability of unregulated contaminant monitoring results, as required under 40 CFR 141.207, as amended from time to time; [or]

(E) Exceedance of the fluoride secondary maximum contaminant level, as required under 40 CFR 141.208, as amended from time to time;[.] or

(F) Violation of a reporting or record-keeping requirement under subsection (x) of this section.

[(117)] (124) "Too numerous to count" means that the total number of bacterial colonies exceeds 200 on a 47 mm diameter membrane filter used for coliform detection;

[(118)] (125) "Total organic carbon" or "TOC" means total organic carbon in mg/l measured using heat, oxygen, ultraviolet irradiation, chemical oxidants, or combinations of these oxidants that convert organic carbon to carbon dioxide, rounded to 2 significant figures;

[(119)] (126) "Total trihalomethanes" or "TTHM" means the sum of the concentrations in milligrams per liter of bromodichloromethane, dibromochloromethane, tribromoethane (bromoform) and trichloromethane (chloroform) rounded, to 2 significant figures;

[(120)] (127) "Transient non-community water system" or "TNC" means a non-community water system that does not meet the definition of a non-transient [noncommunity] non-community water system;

[(121)] (128) "Treatment" means the process of altering the physical, chemical, biological or radiological quality of source water for use as drinking water;

[(122)] (129) "Treatment technique" means a specific treatment method required by the department to control the level of contaminants in drinking water;

[(123)] (130) "Two-stage lime softening" means a process in which chemical addition and hardness precipitation occur in each of 2 distinct unit clarification processes in series prior to filtration;

[(124)] (131) "Uncovered finished water clearwell, tank or basin" means a container used to store water that shall undergo no further treatment to reduce microbial pathogens, except residual disinfection, and is directly open to the atmosphere;

[(125)] (132) "Virus" means a microorganism of fecal origin which is infectious to humans by waterborne transmission;

[(126)] (133) "Water company" [has] shall have the same meaning as provided in section 25-32a of the Connecticut General Statutes;

[(127)] (134) "Waterborne disease outbreak" means the significant occurrence of acute infectious illness, epidemiologically associated with the ingestion of water from a public water system as determined by the department;

[(128)] (135) "Wholesale system" means a public water system that treats source water as necessary to produce finished water and then delivers some or all of that finished water to another public water system. Delivery may be through a direct connection or through the distribution system of 1 or more consecutive public water systems; and

[(129)] (136) "Zone of influence" means the land area that directly overlies and has the same horizontal extent as the part of the water table or other potentiometric surface that is perceptibly lowered by the withdrawal of water. The zone of influence delineated by the use of modeling is that area of land in which the water table or potentiometric surface is lowered by at least 0.5 foot. In the event of inadequate information and data to delineate the zone of influence, a radius of 1 mile shall be utilized for unconsolidated aquifer ground water sources and a radius of 1,000 feet shall be utilized for confined and bedrock aquifer ground water sources.

Sec. 2. Section 19-13-B102(c)(2)(A) of the Regulations of Connecticut State Agencies is amended to read as follows:

(2) (A) A system shall test a ground water source for the applicable contaminants listed in subsections [(e)(1)] (e)(2) through (e)(6), inclusive, of this section, if the department determines that reasonable grounds exist to suspect that any of the applicable contaminants may be present in the ground water source. For the purposes of this section, "reasonable grounds" means any information

that is deemed to be credible by the department to indicate that the particular source is located on or in proximity to land on which the production, storage, use, or disposal of any of the contaminants listed in subsections [(e)(1)] (e)(2) through (e)(6), inclusive, of this section may have occurred.

Sec. 3. Section 19-13-B102(e)(1) of the Regulations of Connecticut State Agencies is amended to read as follows:

(1) Physical [Tests] parameters. A failure to meet a physical parameter level goal is not a violation under this section. The physical parameter level goals for physical parameters are as follows in subparagraphs (A) through (D), inclusive, of this subdivision:

(A) Color [shall not exceed] is less than or equal to 15 standard units leaving the treatment plant [nor] and at sites that are representative [sampling points in] of water throughout the distribution system.

(B) Turbidity [shall not exceed] is less than or equal to 5 standard units at sites that are representative [sampling points in] of water throughout the distribution system.

(C) Odor [shall not exceed] is less than or equal to a value of 2 in the treatment plant effluent on a scale of 0 to 5 as follows:

0-None 3-Distinct
1-Very Faint 4-Decided
2-Faint 5-Strong

(D) [The] pH [value shall not be] is not less than 6.4 [nor exceed] and not greater than 10.0 at a point of entry to the distribution system [or] and in the distribution system. A system conducting water quality parameter monitoring for pH in accordance with [subsection (e)(9)(D) of this section] subdivision (9)(D) of this subsection shall comply with the pH requirements in subsection (j)(8)(G) of this section.

Sec. 4. Section 19-13-B102(e)(2) of the Regulations of Connecticut State Agencies is amended to read as follows:

(2) Inorganic [Chemicals] chemicals.

[Community and non-transient non-community water systems] CWSs and NTNCs shall test for the inorganic chemicals specified below in Table 2-E of this subdivision. [Transient non-community water systems] TNCs shall test for nitrate and nitrite only.

[Inorganic chemicals[(a)] and their limits]

TABLE 2-E. INORGANIC CHEMICALS[(a)] AND THEIR LIMITS

[Chemical] *Chemical*	[Maximum Contaminant Level mg/L] *Maximum Contaminant Level (mg/l)*
Antimony	0.006
Arsenic [[(b)]]	0.010
Asbestos	7 MFL [1]
Barium	2
Beryllium	0.004
Cadmium	0.005
Chromium	0.1

Cyanide	0.2
Fluoride	4.0
Mercury	0.002
Nickel	0.1
Nitrate nitrogen	[10(as N)] 10 (as N)
Nitrite nitrogen	[1(as N)] 1 (as N)
Nitrate nitrogen plus nitrite nitrogen	[10(as N)] 10 (as N)
Selenium	0.05
Silver	0.05
Sulfate	**
Chloride	250
Thallium	0.002
Lead	***
Copper	***
Sodium	*

Notes

[(a)] The method detection limits for inorganic chemicals shall conform to those accepted and approved by EPA as described in 40 CFR 141.23(a), as amended [January 22, 2001] from time to time.

[[(b)] The MCL for arsenic is effective January 23, 2006. Until then the MCL is 0.05 mg/L.]

* Sodium has no MCL, but has a notification level of [28 mg/L] 100 mg/l. [See section 19-13-B102(i)(5)(B) of the Regulations of Connecticut State Agencies for the notification requirements.] The notification requirements for sodium are in subsection (i)(5)(B) of this section.

** A MCL has not been established for this chemical.

*** See [section 19-13-B102(j)(6) of the Regulations of Connecticut State Agencies] subsection (j)(6) of this section. The MCLG for lead is [zero (0)] 0 and for copper [is1.3 mg/L] is 1.3 mg/l.

[1] MFL = million fibers per liter longer than [ten (10)] 10 micrometers.

Sec. 5. Section 19-13-B102(e)(5)(A) and (B) of the Regulations of Connecticut State Agencies is amended to read as follows:

(A) Analysis for the contaminants listed in the table in 40 CFR 141.25(a), as amended [January 22, 2001] from time to time, shall be conducted to determine compliance with section 19-13-B102(e)(5)(I) to (L), inclusive, of the Regulations of Connecticut State Agencies in accordance with the methods described in 40 CFR 141.25(a), as amended [January 22, 2001] from time to time, or their equivalent determined by EPA in accordance with 40 CFR 141.27, as amended [August 27, 1980] from time to time.

(B) When the identification and measurement of radionuclides other than those listed in 40 CFR 141.25(a), as amended [January 22, 2001] from time to time, is required, the references listed in 40 CFR 141.25(b)(1), as amended [January 22, 2001] from time to time, and 40 CFR 141.25(b)(2), as amended [January 22, 2001] from time to time, are to be used, except in cases where alternative methods have been approved in accordance with 40 CFR 141.27, as amended [August 27, 1980] from

time to time.

Sec. 6. Section 19-13-B102(e)(5)(G)(i)(I) of the Regulations of Connecticut State Agencies is amended to read as follows:

(I) If the gross beta particle activity[, or the gross beta particle activity] minus the naturally occurring potassium-40 beta particle activity at a sampling point has a running annual average (computed quarterly) less than or equal to 50 pCi/L (screening level), the department may reduce the frequency of monitoring at that sampling point to once every 3 years. Systems shall collect all samples required in [paragraph] subparagraph (G)(i) of this section during the reduced monitoring period.

Sec. 7. Section 19-13-B102(e)(6) of the Regulations of Connecticut State Agencies is amended to read as follows:

(6) [Total coliforms.

(A) The MCLG for microbiological contaminants, which includes E. coli and fecal coliforms, is zero (0).

(B) The maximum contaminant level (MCL) is based on the presence or absence of total coliforms in a sample, rather than coliform density. Compliance shall be based on a monthly MCL for total coliforms.

(i) For a system which collects at least forty (40) samples per month, if more than five percent (5.0%) of the samples collected during a month are total coliform-positive, the system is in violation of the MCL for total coliforms.

(ii) For a system which collects fewer than forty (40) samples per month, if more than one (1) sample collected during a month is total coliform-positive, the system is in violation of the MCL for total coliforms.

(C) A system shall determine compliance with the MCL for total coliforms for each month in which it is required to monitor for total coliforms.

(D) Analytical methodology.

(i) Analytical methods for total coliform. The analysis for total coliform should be conducted using either the membrane filter (MF) technique, or the 10-tube multiple tube fermentation (MTF) technique (five (5) tubes may be utilized provided they collectively equal one hundred (100) ml), or the presence-absence (P-A) coliform test, or the colilert system as approved and specified in 40 CFR 141.21 (f). The standard sample volume required for total coliform analysis, regardless of analytical method used, is one hundred (100) ml.

(ii) Analytical methods for fecal coliforms. The use of EC medium for determining the presence of fecal coliform in a total coliform-positive culture is required. The procedure for fecal coliform analysis shall conform to those approved by EPA.

(iii) Analytical methods for E. Coli. The analysis for E. Coli shall be conducted using either the EC medium plus MUG (4-methylumbelliferyl-B-D-glucoronice), the nutrient agar plus MUG test or other testing methods which conform to those approved by EPA.] MCLGs for microbiological contaminants. MCLGs for Giardia lamblia, viruses, Legionella, Cryptosporidium and E. coli are as specified in Table 1-A1 of this subdivision:

TABLE 1-A1. MCLGs

CONTAMINANT	MCLG
(i) Giardia lamblia	0
(ii) Viruses	0
(iii) Legionella	0
(iv) Cryptosporidium	0
(v) E. coli	0

Sec. 8. Section 19-13-B102(e)(7)(A) of the Regulations of Connecticut State Agencies is amended to read as follows:

(A) [The monitoring frequency for total coliforms and physical parameters for a community water system (CWS) and a consecutive public water system is based on the population served by the system, and the frequency is as follows:

Table 1

Population Served	Minimum Number Of Routine Samples Per Month
25 to 1,000	1
1,001 to 2,500	2
2,501 to 3,300	3
3,301 to 4,100	4
4,101 to 4,900	5
4,901 to 5,800	6
5,801 to 6,700	7
6,701 to 7,600	8
7,601 to 8,500	9
8,501 to 12,900	10
12,901 to 17,200	15
17,201 to 21,500	20
21,501 to 25,000	25
25,001 to 33,000	30
33,001 to 41,000	40
41,001 to 50,000	50
50,001 to 59,000	60
59,001 to 70,000	70
70,001 to 83,000	80
83,001 to 96,000	90
96,001 to 130,000	100
130,001 to 220,000	120
220,001 to 320,000	150
320,001 to 450,000	180

450,001 to 600,000	210
600,001 to 780,000	240
780,001 to 970,000	270

If a CWS serving twenty-five (25) to one-thousand (1,000) persons has no history of total coliform violation in its current configuration, and a sanitary survey conducted in the past five (5) years shows that the system is supplied solely by a protected ground water source, and is free of sanitary defects pursuant to sections 19-13-B51a through 19-13-B51m of the Regulations of Connecticut State Agencies; the department may, if it is satisfied that this water is safe for consumption, reduce the monitoring frequency specified to no less than one (1) sample per quarter. Department approval of the reduced monitoring frequency shall be in writing. Water samples shall be collected by technical personnel employed by an environmental laboratory approved by the department under section 25-40 of the Connecticut General Statutes, or a certified distribution system operator, or a certified treatment plant operator, or a sanitarian, or an employee of the department, or a person under the direct supervision of either a certified distribution system operator, or a certified treatment plant operator.

The residual disinfectant concentration shall be measured at the same point in the distribution system and at the same time as total coliforms are sampled, as specified in this subparagraph and subparagraph (G) of this subdivision. The presence of a residual disinfectant concentration in a sample from a system that is not approved for continuous chlorination shall invalidate the sample.] Monitoring frequency for total coliform and physical parameters for CWSs. CWSs shall monitor for total coliform and physical parameters in accordance with subsection (x) of this section.

Sec. 9. Section 19-13-B102(e)(7)(B) of the Regulations of Connecticut State Agencies is amended to read as follows:

(B) [The monitoring frequency for total coliforms and physical parameters for non-community water systems is as follows:

(i) A non-community water system using only ground water sources that are not under the direct influence of surface water and serving one thousand (1,000) persons or fewer shall monitor during each calendar quarter that the system provides water to the public, except that the department may reduce this monitoring frequency, in writing, to no less than once a year if a sanitary survey shows that the system is free of sanitary defects pursuant to sections 19-13-B51a through 19-13-B51m of the Regulations of Connecticut State Agencies.

(ii) A non-community water system using only ground water sources that are not under the direct influence of surface water and serving more than one thousand (1,000) persons shall monitor as specified in Table 1. Monitoring shall begin no later than December 31, 1990.

(iii) A non-community water system using surface water, in total or in part, shall monitor at the frequency specified in Table 1, regardless of the number of persons it serves. Monitoring shall begin no later than December 31, 1990.

(iv) A non-community water system using groundwater under the direct influence of surface water, shall monitor at the frequency specified in Table 1. Monitoring shall begin six (6) months after the department determines that the ground water is under direct influence of surface water.

(v) The residual disinfectant concentration shall be measured at the same point in the distribution system and at the same time as total coliforms are sampled, as specified in this subparagraph and subparagraph (G) of this subdivision. The presence of a residual disinfectant concentration in a sample from a system that is not approved for continuous chlorination shall invalidate the sample.] Monitoring frequency for total coliform and physical parameters for non-community water systems.

Non-community water systems shall monitor for total coliform and physical parameters in accordance with subsection (x) of this section.

Sec. 10. Section 19-13-B102(e)(7)(C)(xv) of the Regulations of Connecticut State Agencies is amended to read as follows:

(xv) All new systems or systems that use a new source of water [that began operation after January 22, 2004,] shall demonstrate compliance with the MCL for inorganic chemicals, organic chemicals, pesticides, herbicides, and polychlorinated biphenyls. The system shall also comply with the initial sampling frequencies specified by the department to ensure a system can demonstrate compliance with the MCL. Routine and increased monitoring frequencies shall be conducted in accordance with the requirements in this section.

Sec. 11. Section 19-13-B102(e)(7)(D)(i) of the Regulations of Connecticut State Agencies is amended to read as follows:

(i) Systems shall collect total coliform and physical parameter samples [at sites that are representative of water throughout the distribution system, according to that system's written sample siting plan. These plans are subject to department review, revision and approval. Systems shall collect the monthly samples at regular intervals throughout the month, except that a system that uses ground water sources that are not under the direct influence of surface water and serves one thousand (1,000) persons or fewer, may collect all required samples on a single day if they are taken from different sites. The siting plan is to be reviewed as necessary and is subject to approval by the department, usually in conjunction with the sanitary surveys] in accordance with the system's sample siting plan under subsection (x)(3) of this section.

Sec. 12. Section 19-13-B102(e)(7)(E)(i)(I) of the Regulations of Connecticut State Agencies is amended to read as follows:

(I) A sanitary survey shall include, but not be limited to, an onsite inspection by the department of the system's water source or sources, facilities, equipment, operations, maintenance, and monitoring compliance program.

Sec. 13. Section 19-13-B102(e)(7)(F) of the Regulations of Connecticut State Agencies is amended to read as follows:

(F) Invalidation of total coliform-positive samples. The department may invalidate a total coliform-positive sample [only if:

(i) The department approved laboratory establishes and verifies in writing that improper sample analysis caused the total coliform-positive result.

(ii) The system determines that the contamination is a domestic or other non-distribution system plumbing problem on the basis that one (1) or more repeat sample(s) taken at the same tap as the original total coliform-positive sample is total coliform-positive, but all repeat samples at nearby sampling locations are total coliform-negative. (The department cannot invalidate a total coliform-positive sample on the basis of repeat samples if all the repeat samples are total coliform-negative, or

if the system has only one (1) service connection.)

(iii) The department has substantial grounds to believe that a total coliform-positive result is due to some circumstance or condition that does not reflect water quality in the distribution system, if the basis for this determination with the rationale for the decision is documented in writing, this document is signed and approved by the supervisor of the department official who makes this determination, and the documentation is made available to EPA and the public. In this case, the system shall still collect all repeat samples as required in subparagraph (G) of subsection 19-13-B102(e)(7) of the regulations of Connecticut State Agencies. The department may not invalidate a total coliform-positive sample solely on the grounds that all repeat samples are total coliform-negative.] in accordance with subsection (x)(3)(E) of this section.

Sec. 14. Section 19-13-B102(e)(7)(G) of the Regulations of Connecticut State Agencies is amended to read as follows:

(G) [Repeat monitoring/additional routine samples:

(i) If a routine sample is confirmed total coliform-positive, the system shall collect a set of repeat samples within twenty-four (24) hours of the confirmed positive result according to Table 2.

Table 2 - Monitoring Requirements Following A Total Coliform-Positive Routine Sample:

Routine Samples/Mo	*Repeat Samples*[1]	*Routine Samples* Next Month[2]
1/Mo. or fewer	4	5/Mo.
2/Mo.	3	5/Mo.
3/Mo.	3	5/Mo.
4/Mo.	3	5/Mo.
5/Mo. or more	3	Table 1[3]

[1] Number of repeat samples in the same month for each total coliform-positive routine sample.

[2] Except where the department has invalidated the original routine sample.

[3] System need not take any additional samples beyond those it is required to take according to Table 1.

The department shall extend the twenty-four (24) hour limit to no more than ninety-six (96) hours provided the system verifies that their contract laboratory is closed for the weekend or holidays or their sample sites are unavailable. (Waiver shall be requested and granted before the original twenty-four(24) hour period elapses.)

(ii) The system shall collect at least one (1) repeat sample from the sampling tap where the original total coliform-positive sample was taken and at least one (1) repeat sample at a tap within five (5) service connections upstream and at least one repeat sample at a tap within five (5) service connections downstream of the original sampling site. For those systems that shall collect four (4) repeat samples, the fourth repeat sample can be collected from any distribution sampling point within the system. If a total coliform-positive sample is at the end or at the beginning of the distribution system, the system shall collect one (1) repeat sample at the original sampling point and the other required repeat samples at sampling points within five (5) service connections upstream or downstream from the original sampling point.

(iii) The system shall collect all repeat samples on the same day, except that the department may allow a system with a single service connection to collect the required set of repeat samples over a four-day period or to collect a larger volume repeat sample(s) in one (1) or more sample containers of

any size, as long as the total volume collected is at least 400 ml (300 ml for systems that collect more than one (1) routine sample/month) provided four (4) separate sampling locations are not available.

(iv) If a system collecting fewer than five (5) routine samples per month has one (1) or more total coliform-positive samples and the department does not invalidate the sample(s), it shall collect at least five (5) routine samples during the next month the system provides water to the public.

(v) If after a system collects a routine sample and before it learns the results of the analysis of that sample, it collects another routine sample(s) from within five (5) adjacent service connections of the initial sample, and the initial sample after analysis is found to contain total coliforms; then the system may count the subsequent sample(s) as a repeat sample instead of as a routine sample.

(vi) If 1 or more samples in the set of repeat samples is confirmed total coliform-positive, the system shall collect an additional set of repeat samples. The system shall collect the additional samples not later than 24 hours after the confirmed positive result, unless the department extends the 24-hour limit under clause (i) of this subparagraph. The system shall repeat this process until either total coliforms are not detected in 1 complete set of repeat samples or the system determines that the MCL for total coliforms has been exceeded and notifies the department.

(vii) Results of all routine and repeat samples not invalidated by the department shall be included in determining compliance with the MCL for total coliforms. Special purpose samples shall not be used to determine compliance with the MCL for total coliforms.] A system shall collect routine and repeat samples in accordance with subsection (x) of this section.

Sec. 15. Section 19-13-B102(e)(7)(H) of the Regulations of Connecticut State Agencies is amended to read as follows:

(H) [A system that uses a groundwater source under the direct influence of surface water, and that does not provide and operate treatment pursuant to section 19-13- B102 (j)(2) of the Regulations of Connecticut State Agencies, shall collect and test for total coliform and turbidity levels as specified in the following subclauses:

(i) The system shall collect at least one (1) total coliform sample which shall be collected near the first service connection each day the turbidity level of the source water exceeds one (1) nephelometric turbidity unit (NTU). The system shall collect this coliform sample within twenty-four (24) hours of the first exceedance of one (1) NTU, unless the department waives this requirement as noted in subparagraph (7)(G)(i) of this subsection. Sample results from this coliform monitoring shall be included along with the results of all acceptable, as determined by the department, routine and repeat samples in determining compliance with the MCL for total coliforms.

(ii) The system shall perform tests for turbidity on samples collected, at least daily, at a point or points representative of water entering the distribution system. The system shall conduct such tests in accordance with the method as specified in 40 CFR 141.74(a)(1). When the turbidity of any such sample exceeds one (1) nephelometric turbidity unit (NTU), the sampling shall be repeated and a new test made for turbidity within one hour of the original test or as soon as practical. If the repeat test also exceeds the turbidity limit of one (1) NTU, this shall be reported to the department within twenty-four (24) hours. If the monthly average exceeds one (1) NTU, or if the average of two (2) samples taken on consecutive days exceeds five (5) NTU, it shall be reported to the department within twenty-four (24) hours.] A system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall collect total coliform samples and perform tests for turbidity in accordance with subsection (x) of this section.

Sec. 16. Section 19-13-B102(e)(7)(I) of the Regulations of Connecticut State Agencies is amended to

read as follows:

(I) Fecal coliform and E. coli requirements.

(i) [If any routine or repeat sample is total coliform-positive, the system shall analyze that total coliform-positive culture medium to determine if fecal coliforms or E. coli are present. The system shall notify the department by the end of the day on which the system is notified of the positive test result but not later than 96 hours after the time of sample collection. If the department's office is closed at that time, notification shall be made before the end of the next business day.

(ii) If any repeat sample is fecal coliform-positive or E. coli-positive, or if a fecal coliform-positive or E. coli-positive routine sample is followed by a total coliform-positive repeat sample and the repeat sample is not invalidated, the system is in violation of the MCL for total coliforms. This is an acute risk violation of the MCL for total coliforms.] A system is in compliance with the MCL for E. coli for samples taken under the provisions of subsection (x) of this section unless any of the conditions identified in subclauses (I) through (IV), inclusive, of this clause occur. For purposes of the public notification requirements in subsection (i) of this section, violation of the MCL may pose an acute risk to public health.

(I) The system has an E. coli-positive repeat sample following a total coliform-positive routine sample.

(II) The system has a total coliform-positive repeat sample following an E. coli-positive routine sample.

(III) The system fails to take all required repeat samples following an E. coli-positive routine sample.

(IV) The system fails to test for E. coli when any repeat sample tests positive for total coliform.

(ii) A system shall determine compliance with the MCL for E. coli in clause (i) of this subparagraph for each month in which the system is required to monitor for total coliforms.

(iii) A system shall use the technology, treatment techniques and other means identified in 40 CFR 141.63(e), as amended from time to time, to achieve compliance with the MCL for E. coli in clause (i) of this subparagraph.

Sec. 17. Section 19-13-B102(e)(7)(J) of the Regulations of Connecticut State Agencies is amended to read as follows:

(J) Heterotrophic bacteria interference (HBI).

[(i) A laboratory analysis shall be conducted by an environmental laboratory issued a certificate of approval by the department pursuant to section 19a-29a of the Connecticut General Statutes.

(ii) A laboratory shall invalidate any total coliform sample which produces: a turbid culture in the absence of gas production using the multiple tube fermentation (MTF) technique, or a turbid culture in the absence of an acid reaction using the presence-absence (P-A) coliform test, or confluent growth or a colony number that is "too numerous to count" using the membrane filter (MF) technique (unless total coliforms are detected).

(iii) If a laboratory invalidates a total coliform sample under clause (ii) of this subparagraph, the system shall collect another sample from the same location not later than 24 hours after notification from the laboratory that such sample is invalidated, and have the sample analyzed for total coliforms. If HBI occurs in the replacement sample, the system shall continue to resample at the same location not later than 24 hours after notification of the laboratory until a sample in which HBI does not occur is obtained. The results of the sample in which HBI does not occur shall be included in compliance calculations.] A total coliform-positive sample that produces a turbid culture in the absence of gas

production using an analytical method where gas formation is examined may be invalidated by the department in accordance with subsection (x)(3)(E) of this section.

Sec. 18. Section 19-13-B102(e)(7)(R) of the Regulations of Connecticut State Agencies is amended to read as follows:

(R) Monitoring requirements for systems with a [groundwater source under the direct influence of surface water] GWUDI source. [For a groundwater source under the direct influence of surface water that] A system with a GWUDI source is required to provide and operate treatment pursuant to subsection (j)(2) of this section. [19-13-B102(j)(2) of the Regulations of Connecticut State Agencies, the department shall be guided by its document entitled, "Determination Of Groundwater Under The Direct Influence Of Surface Water." Interim monitoring requirements shall be required prior to installation of filtration. Specific] During the interim period between the date on which the department made the determination pursuant to subsection (j)(2) of this section that a system is required to provide and operate treatment and such treatment is installed, the system with a GWUDI source shall comply with the requirements [shall be determined pursuant to] in subsections (e)(7)(M), (j)(2)(D), (j)(3)(A), [(e)(7)(H), and (e)(7)(M)] (x)(6)(C), and (x)(7)(C) of this section.

Sec. 19. Section 19-13-B102(e)(7)(S)(iii) of the Regulations of Connecticut State Agencies is amended to read as follows:

(iii) [The residual disinfectant concentration shall be measured at least at the same points in the distribution system and at the same time as total coliforms are sampled, as specified in section 19-13-B102(e)(7) of the Regulations of Connecticut State Agencies.] A system shall measure the residual disinfectant concentration at least at the same points in the distribution system and at the same time as total coliforms are sampled, as specified in subsections (x)(4) through (x)(8), inclusive, of this section. Heterotrophic bacteria, measured as heterotrophic plate count, [(HPC)] as specified in 40 CFR 141.74 (a)(1), as amended from time to time, may [additionally] be measured and used in conjunction with the measurement for residual disinfectant concentration when determining compliance pursuant to subsection (j)(3)(B)(iii) of this section [19-13-B102(j)(3)(B)(iii) of the Regulations of Connecticut State Agencies].

Sec. 20. Section 19-13-B102(e)(8)(D)(iv)(VI)(2) of the Regulations of Connecticut State Agencies is amended to read as follows:

(2) Any CWS or NTNC subject to the reduced monitoring frequency that fails to meet the lead action level during any 4 consecutive month monitoring period or that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the department under subsection (j)(8)(F) of this section for more than 9 days in any 6 month period specified in subdivision (9)(D) of this subsection shall conduct tap water sampling for lead and copper at the frequency specified in clause (iii) of this subparagraph, collect the number of samples specified for standard monitoring in subparagraph (C) of this subdivision, and shall resume monitoring for water quality parameters within the distribution system in accordance with subdivision (9)(D) of this subsection. This standard tap water sampling shall begin not later than the 6 month period beginning January 1 of the calendar year following the lead action level exceedance

or water quality parameter excursion. Such a CWS or NTNC may resume reduced monitoring for lead and copper at the tap and for water quality parameters within the distribution system under the following conditions in subclause (VI)(2)(A), (B) and (C) of this clause:

Sec. 21. Section 19-13-B102(e)(11)(A)(iii)(III)(1)(A) of the Regulations of Connecticut State Agencies is amended to read as follows:

(A) Routine monitoring for chlorine and chloramines. Such CWSs and such NTNCs shall measure the residual disinfectant level in the distribution system at the same point in the distribution system and at the same time as total coliforms are sampled, [in accordance with subsection (e)(7)] as specified in subsections (x)(4) through (x)(8), inclusive, of this section. Such CWSs and such NTNCs that are Subpart H systems may use the results of RDC sampling conducted under 40 CFR 141.74(c)(3)(i), as amended from time to time, in lieu of taking separate samples.

Sec. 22. Section 19-13-B102(e)(12)(C) of the Regulations of Connecticut State Agencies is amended to read as follows:

(C) Triggered source water monitoring.

(i) General requirements.

(I) E. coli is the fecal indicator for triggered source water monitoring under this subparagraph, unless the department specifies another fecal indicator that shall be used.

(II) A ground water system shall conduct triggered source water monitoring if the following conditions exist:

(1) The ground water system does not provide at least 4 log treatment of viruses using inactivation, removal, or a department-approved combination of 4 log virus inactivation and removal before or at the first consumer for each ground water source that the department has approved under subsection (j)(14)(B)(i) or (ii) of this section; and

(2) The ground water system is notified that a sample collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this section is total coliform-positive and the sample is not invalidated by the department under [subdivision (7)(F) of this] subsection (x)(3)(E) of this section.

(ii) Sampling requirements. A ground water system shall collect, not later than 24 hours after notification of a total coliform-positive sample collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this section, at least 1 ground water source sample from each ground water source in use at the time the total coliform-positive sample was collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this section, except as provided in subclause (II) of this clause. For purposes of this clause, the term "in use" means the ground water source had the capacity to provide water to the monitoring site at the time the total coliform-positive sample was collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this section.

(I) The department may extend the 24-hour time limit if the ground water system cannot collect the ground water source sample within 24 hours due to circumstances beyond the ground water system's control. A ground water system shall submit an application to the department in accordance with subsection (t) of this section requesting an extension beyond the 24-hour time limit, specifying the circumstances beyond the ground water system's control that [prevent] prevented such ground water system from collecting a ground water source sample not later than 24 hours after notification

of the total coliform-positive sample. The ground water system shall file such application with the department not later than 24 hours after being notified of the total coliform-positive sample. If the department's office is closed at that time, the ground water system shall file such application with the department before the end of the next business day. The department shall not grant an extension of more than 72 hours, thereby approving the system to collect the ground water source sample not later than 96 hours after notification of the total coliform-positive sample, unless the ground water system in the ground water system's application provides evidence that the ground water system's contract laboratory is closed for the weekend or a holiday and the closure will prevent such ground water system from collecting the ground water source sample not later than 96 hours after being notified of the total coliform-positive sample.

(II) If approved by the department, ground water systems with more than 1 ground water source may meet the requirements of this clause by sampling a representative ground water source or sources. A ground water system shall submit an application to the department in accordance with subsection (t) of this section requesting approval to meet the requirements of this clause by sampling a representative ground water source or sources. Ground water systems shall include with the application a triggered source water monitoring plan that identifies all of the ground water sources that are representative of each distribution system monitoring site in the ground water system's sample siting plan under [subdivision (7)(D)(i) of this] subsection (x)(3) of this section and that the ground water system intends to use for representative sampling under this subclause. Such plan shall include all of the ground water sources that supply each of the distribution system monitoring sites in the ground water system's sample siting plan under [subdivision (7)(D)(i) of this] subsection (x)(3) of this section under normal operating conditions. A ground water system shall not meet the requirements of this clause by sampling a representative ground water source or sources until the ground water system has received department approval of the ground water system's application.

(III) A ground water system serving 1,000 people or fewer may use a repeat sample collected from a ground water source to meet both the requirements of [subdivision (7)(G)(i) of this] subsection (x) of this section and to satisfy the monitoring requirements of this clause for that ground water source only if: [the] (a) The department-approved fecal indicator under clause (i)(I) of this subparagraph is E. coli; [.] and (b) The department approved pursuant to subsection (x)(3)(A)(v)(III) of this section the use of a single sample for meeting both the triggered source water monitoring requirements in this subparagraph and the repeat monitoring requirements in subsection (x)(8) of this section. If the repeat sample collected from the ground water source is E. coli positive, the ground water system shall comply with the requirements of clause (iii) of this subparagraph. [The ground water system shall also comply with the requirements of subdivision (7)(G) of this subsection, if applicable.]

(iii) Additional requirements. If the department does not require corrective action under subsection (j)(14)(A) of this section for a fecal indicator-positive source water sample collected under clause (ii) or (iv) of this subparagraph that is not invalidated under subparagraph (F) of this subdivision or if the department does not invalidate a fecal indicator-positive source water sample collected under subparagraph (D)(ii) or (I) of this subdivision, the ground water system shall collect 5 additional source water samples from the same source not later than 24 hours after being notified of a fecal indicator-positive sample collected under subparagraphs (C)(ii), (C)(iv), (D)(ii) or (I) of this subdivision. [If a ground water system is unable to collect the additional source water samples not later than 24 hours after being notified of the fecal indicator-positive sample, the ground water system shall submit an application to the department requesting an extension beyond the 24-hour time limit. Such application shall include documentation demonstrating that the ground water system's contract laboratory is closed for the weekend or a holiday and the closure will prevent such ground water system from collecting the ground water source sample not later than 24 hours after being notified of the fecal indicator-positive sample, and shall be submitted in accordance with

subsection (t) of this section. The ground water system shall file such application with the department not later than 24 hours after being notified of the fecal indicator-positive sample. If the department's office is closed at that time, the ground water system shall file such application with the department before the end of the next business day. The department shall not grant an extension of more than 72 hours, thereby approving the ground water system to collect the ground water source sample not later than 96 hours after notification of the fecal indicator-positive sample.]

(iv) Consecutive and wholesale systems.

(I) In addition to the other requirements in this subparagraph, a consecutive public water system served by a ground water source or sources that [that] has a total coliform-positive sample collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this section shall notify the wholesale system or systems not later than 24 hours after being notified of the total coliform-positive sample[, unless the wholesale system's office is closed at that time, in which case the consecutive public water system served by a ground water source or sources shall notify those wholesale system or systems before the end of the next business day].

(II) In addition to the other requirements in this subparagraph, a wholesale ground water system shall comply with the following requirements:

(1) A wholesale system served by a ground water source or sources that receives notice from a consecutive system it serves that a sample collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this section is total coliform-positive shall, not later than 24 hours after being notified, collect a sample from the wholesale ground water system's ground water source or sources under clause (ii) of this subparagraph and analyze the sample for a fecal indicator in accordance with the analytical methods in subparagraph (E) of this subdivision.

(2) If the sample collected under subclause (II)(1) of this clause is fecal indicator-positive, the wholesale system served by a ground water source or sources shall notify all consecutive systems served by that ground water source of the fecal indicator source water positive not later than 24 hours after being notified of the ground water source sample monitoring result[, unless 1 or more of the consecutive systems' offices are closed at that time, in which case the wholesale system served by a ground water source or sources shall notify those consecutive systems before the end of the next business day,] and shall meet the requirements of clause (iii) of this subparagraph.

(v) Exceptions to the triggered source water monitoring requirements. A ground water system is not required to comply with the source water monitoring requirements of this subparagraph if any of the following conditions exist:

(I) The department determines that the total coliform-positive sample collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this section is caused by a previously-documented distribution system deficiency. A ground water system shall submit an application to the department in accordance with subsection (t) of this section requesting a determination from the department whether the total coliform-positive sample collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this section was caused by a distribution system deficiency. The application shall include documentation demonstrating that the distribution system deficiency that caused the total coliform-positive sample was previously documented. Documentation that the distribution system deficiency was previously documented includes, but is not limited to, distribution system sampling results, repair records, facility inspection reports, cross connection surveys, and documentation of areas of low pressure. The ground water system shall submit such application to the department[before] not later than 24 hours of being notified of the total coliform-positive sample [result is received by the department];

(II) The department determines that the total coliform-positive sample collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this

section was collected at a location in the distribution system that has a condition that will cause total coliform-positive samples. A ground water system shall submit an application to the department in accordance with subsection (t) of this section requesting a determination from the department whether the total coliform-positive sample collected under [subdivision (7)(A) or (B) of this subsection] subsections (x)(4) through (x)(7), inclusive, of this section was collected at a location in the distribution system that has a condition that will cause total coliform-positive samples. Such application shall include documentation demonstrating that the condition in the distribution system will cause a total coliform-positive sample. Documentation that a condition in the distribution system caused the total coliform-positive sample includes, but is not limited to, documentation of recurring bio-film problems. The ground water system shall submit such application to the department [before] not later than 24 hours of being notified of the total coliform-positive sample [result is received by the department]; or

(III) The ground water system provides at least 4 log treatment of viruses using inactivation, removal, or a department-approved combination of 4 log virus inactivation and removal before or at the first consumer for each ground water source that the department has approved under subsection (j)(14)(B)(i) or (ii) of this section.

Sec. 23. Section 19-13-B102(h)(1) and (2) of the Regulations of Connecticut State Agencies are amended to read as follows:

(1) A system that has exceeded the MCL for [total coliforms or a] E. coli shall comply with the reporting requirements in subsection (x)(11) of this section. A ground water system that has collected a source water sample under subsections (e)(12)(C) or (e)(12)(D) of this section that is fecal indicator-positive shall report the violation or the fecal indicator-positive sample in writing to the department and the local director of health of each city, town, borough, or district served by the system not later than the end of the next business day after the system learns of the violation or fecal indicator-positive sample, and shall provide notice to the public in accordance with subsection (i) of this section.

(2) A system that has failed to comply with a monitoring requirement under [subsections (e)(6) and (e)(7)] subsection (x) of this section shall report the monitoring violation [in writing] to the department [not later than 10 days after the system discovers the violation, and shall provide notice to the public] in accordance with subsection [(i)] (x)(11) of this section.

Sec. 24. Section 19-13-B102(i)(5)(B) of the Regulations of Connecticut State Agencies is amended to read as follows:

(B) When the sodium concentration in finished water exceeds [28.0] 100 mg/l, the system shall notify the system's consumers of the concentration by direct mail or in the next billing cycle, and shall repeat such notification annually for as long as the exceedance exists. At a minimum, the notice shall include the following mandatory language: "If you have been placed on a sodium-restricted diet, please inform your physician that our water contains (BLANK) mg/l of sodium." (The blank space [should] shall contain the level of sodium in the water.)

Sec. 25. Section 19-13-B102(i)(6)(B)(iii)(IV) of the Regulations of Connecticut State Agencies is amended to read as follows:

(IV) A CWS shall repeat the task in clause (ii)(V) of this subparagraph once every 6 months on a schedule approved in writing by the department. To request approval of the CWS's schedule, the CWS shall submit an application to the department in accordance with subsection (t) of this section at least 30 calendar days prior to the last day of the 60 day implementation period. If the department approves such [extension] schedule, the department shall do so in writing in advance of the 60-day deadline.

Sec. 26. Section 19-13-B102(j)(2)(D) of the Regulations of Connecticut State Agencies is amended to read as follows:

(D) A system shall install and have operational treatment consisting of disinfection and filtration in accordance with this subdivision not later than 18 months after the department's determination that treatment is required for a ground water source. Such determination shall be made if that ground water source is at risk of contamination from surface water. As an interim requirement until such treatment is operational, turbidity shall not exceed a monthly average of 1 nephelometric turbidity unit (NTU) or a 2 consecutive day average of 5 NTUs as monitored pursuant to [subsection (e)(7)(H)] subsections (x)(6)(C) or (x)(7)(C) of this section, as applicable, and the system supplied by this GWUDI source shall be free of any waterborne disease outbreak.

Sec. 27. Section 19-13-B102(k) of the Regulations of Connecticut State Agencies is amended as follows:

(k) **Variances and exemptions.** [Variances and Exemptions from the MCL for total coliforms of subparagraph 19-13-B102 (e) (6) (B) of the Regulations of Connecticut State Agencies may be granted by the department for systems that demonstrate to the satisfaction of the department that the violation of the total coliform MCL is due to a persistent growth of total coliforms in the distribution system rather than fecal or pathogenic contamination, a treatment lapse or deficiency, or a problem in the operation or maintenance of the distribution system. The department shall use the following criteria to identify systems that could operate under a variance without posing an unreasonable risk to health:

(1) Over the past thirty (30) days, water entering the distribution system is shown to:

(A) Be free from a fecal coliform or E.coli occurrence based on at least daily sampling;

(B) contain less than one (1) total coliform per hundred (100) milliliters of influent water in at least ninety five percent (95%) of all samples based on at least daily sampling;

(C) Comply with the total turbidity requirements of Section 19-13-B102 (j);

(D) Contain a continuous disinfection residual of at least 0.2 mg/l;

(2) The system has had no waterborne disease outbreak while operated in its present configuration;

(3) The system maintains biweekly contact with the department and local health departments to assess illness possibly attributable to microbial occurrence in the public drinking water system;

(4) The system has evaluated, on a monthly basis, at least the number of samples specified in Section 19-13-B102 (e) and has not had an E.coli-positive compliance sample within the last six months, unless the system demonstrates to the department that the occurrence is not due to contamination entering the distribution system;

(5) The system has undergone a sanitary survey conducted by a party approved by the department within the past twelve (12) months;

(6) The system has a cross connection control program acceptable to the department and performs an audit of the effectiveness program;

(7) The system agrees to submit a biofilm control plan to the department within twelve (12) months of the granting of the first request for a variance;

(8) The system monitors general distribution system bacterial quality by conducting heterotrophic bacteria plate counts on at least a weekly basis at a minimum of ten percent (10%) of the number of total coliform sites specified for that system size in Section 19-13-B102 (e); and

(9) The system conducts daily monitoring at distribution system sites approved by the department and maintains a detectable disinfectant residual at a minimum of ninety five percent (95%) of those points and a heterotrophic plate count of less than five hundred (500) colonies per ml at sites without a disinfectant residual.] The department shall no longer grant variances or exemptions from the MCL for total coliforms.

Sec. 28. Section 19-13-B102(*l*) of the Regulations of Connecticut State Agencies is amended to read as follows:

(*l*) **Record maintenance.**

[(1)] Any owner of a system shall [retain] maintain on its premises or at a convenient location near its premises the records described in [subparagraphs (A) to (U) of this subdivision] subdivisions (1) through (21), inclusive, of this subsection for the period of time specified in subdivisions (1) through (21), inclusive, of this subsection. All such records maintained by an owner of a system shall be available for inspection by the department immediately upon the request of the department. [:]

[(A)] (1) Records of all microbiological analyses and turbidity analyses made pursuant to this section shall be kept for not less than 5 years. Records of chemical analyses shall be kept for not less than 10 years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided the following information is included:

[(i)] (A) The date, place and time of sampling, and the name of the person who collected the sample;

[(ii)] (B) Identification of the sample as to whether it was a routine distribution system sample, check sample, raw or processed water sample or other special purpose sample;

[(iii)] (C) Date of analysis;

[(iv)] (D) Laboratory and person responsible for performing analysis;

[(v)] (E) The analytical technique/method used; and

[(vi)] (F) The results of the analysis.

[(B)] (2) Records of action taken by the system to correct violations of primary drinking water regulations shall be kept for a period not less than 3 years after the last action taken with respect to the particular violation involved.

[(C)] (3) Copies of any written reports, summaries or communications relating to sanitary surveys of the system conducted by the system itself, by a private consultant, or by any local, state or federal agency, shall be kept for a period not less than 10 years after completion of the sanitary survey involved.

[(D)] (4) Records concerning a variance or exemption granted to the system shall be kept for a period ending not less than 5 years following the expiration of such variance or exemption.

[(E)] (5) Accurate and up-to-date maps and records showing the location of all mains, valves, hydrants, service connections, and other facilities including pumps, tanks and treatment plants shall be maintained for each CWS. An integrated map of the system showing supply, including ground water, surface water and GWUDI sources, as well as any water company land associated with such

sources, treatment, pumping and storage facilities and major mains shall be filed with the department and updated at least every 5 years.

[(F)] (6) Records of each complaint received about water quality or adequacy shall be retained for each CWS. A record of the original complaint shall be kept for a period of 3 years subsequent to the final resolution of the complaint.

[(G)] (7) Recordkeeping requirements for lead and copper. Any CWS or NTNC subject to the requirements of subsections (e)(7)(K), (e)(8) through (e)(10), inclusive, (h)(5), (i)(6), and (j)(7) through (j)(10), inclusive, of this section shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, department determinations and any other information required by subsections (e)(7)(K), (e)(8) through (e)(10), inclusive, (h)(5), (i)(6), and (j)(7) through (j)(10), inclusive, of this section. Each CWS or NTNC shall retain the records required by this subparagraph for not less than 12 years.

[(H)] (8) Records of any reports, test results, correspondence or other records collected as part of the system's cross connection control program, pursuant to subsection (f) of this section, shall be kept for not less than 5 years.

[(I)] (9) A copy of the consumer confidence report shall be kept for not less than 5 years.

[(J)] (10) A copy of the public records for combined and individual filter turbidity measurements, as required in subsection (e)(7)(S) of this section, shall be kept for not less than 3 years.

[(K)] (11) A copy of the public notice and certification of compliance pursuant to subsection (i)(8) of this section shall be kept for not less than 3 years.

[(L)] (12) A complete copy of the system's department-approved standard monitoring plan, including any department modification of the system's standard monitoring plan, shall be kept for as long as the system is required to retain the system's IDSE report under [subparagraph (O) of this] subdivision (15) of this subsection.

[(M)] (13) A complete copy of the system's department-approved system specific study plan, including any department modification of the [system's] system specific study plan, shall be kept for as long as the system is required to retain the system's IDSE report under [subparagraph (O) of this] subdivision (15) of this subsection.

[(N)] (14) A complete copy of the system's department-approved 40/30 certification shall be kept for 10 years after the date that the system submitted the system's certification. The system shall make the certification, all data upon which the certification is based, and any department notification available for review by the department and the public.

[(O)] (15) A complete copy of the system's department-approved IDSE report shall be kept for 10 years after the date that the system submitted the system's IDSE report to the department. If the department modified the monitoring requirements under subsection (e)(11)(C) of this section [monitoring requirements that the system recommended] in the system's IDSE report or if the department approved alternative monitoring locations, the system shall keep a copy of the department's approval on file for 10 years after the date of the department's approval. The system shall make the IDSE report and any department approval available for review by the department and the public.

[(P)] (16) Copies of any monitoring plans and monitoring results under subsection (e)(11)(C) of this section shall be kept for the same period of time as the records of analyses taken under the plan are required to be kept under [subparagraph (A) of this] subdivision (1) of this subsection, except as specified elsewhere in this subdivision. The system shall make the monitoring plans and the monitoring results under subsection (e)(11)(C) of this section available for review by the department and the public.

[(Q)] (17) Copies of monitoring plans developed pursuant to this section shall be kept for the same period of time as the records of analyses taken in accordance with the monitoring plan are required to

be kept under [subparagraph (A) of this] subdivision (1) of this subsection, except as specified elsewhere in this section.

[(R)] (18) Results from the initial round of source water monitoring under 40 CFR 141.701(a) and the second round of source water monitoring under subsection (e)(7)(T)(ii)(I) of this section shall be kept for a period of not less than 3 years after bin classification under subsection (j)(12)(A) of this section for the particular round of monitoring.

[(S)] (19) A department-approved application in which the system requested approval of an exemption from source water monitoring because the system met the criteria in subsection (e)(7)(T)(ii)(III) of this section shall be kept for not less than 3 years.

[(T)] (20) Results of treatment monitoring associated with microbial toolbox options under subsections (j)(13)(B) through (F), inclusive, of this section [for] shall be kept for not less than 3 years.

[(U)] (21) In addition to the requirements of [subparagraphs (A) through (T), inclusive, of this subdivision] subdivisions (1) through (20), inclusive, of this subsection, a ground water system regulated under subsections (e)(7)(E), (e)(12) and (j)(14) of this section shall retain on its premises or at a convenient location near its premises the following records:

[(i)] (A) Documentation of corrective actions taken under subsections (e)(7)(E)(iv) and (j)(14) of this section shall be kept for not less than 10 years.

[(ii)] (B) Documentation of notice to the public as required under subsection (i)(5)(F) of this section shall be kept for not less than 3 years.

[(iii)] (C) Records of decisions under subsection (e)(12)(C)(v)(II) of this section and records of invalidation of fecal indicator-positive ground water source samples under subsection (e)(12)(F) of this section shall be kept for not less than 5 years.

[(iv)] (D) For consecutive systems, documentation of notification provided to the wholesale [system(s)] system or systems under subsection (e)(12)(C)(iv)(I) of this section of total-coliform-positive samples that were not invalidated [under subsection (e)(7)(F) of this section] by the department shall be kept for not less than 5 years.

[(v)] (E) For systems, including wholesale systems, that are required to perform compliance monitoring under subsection (j)(14)(B) of this section, the following record-keeping requirements shall apply:

[(I)] (i) Records of the system's required minimum RDC stated in the department's approval issued pursuant to subsection (j)(14)(B)(i) or (ii) of this section and the required minimum CT value, if the department stated a required minimum CT value in the department's approval issued pursuant to subsection (j)(14)(B)(i) or (ii) of this section, shall be kept for not less than 10 years.

[(II)] (ii) Records of the lowest daily RDC, and records of the date and duration of any failure to maintain the system's required minimum RDC or the system's required minimum CT value, or both, for a period of more than 4 hours shall be kept for not less than 5 years.

[(III)] (iii) Records of department-approved compliance requirements for a department-approved alternative treatment and records of the date and duration of any failure to meet the membrane operating, membrane integrity, or alternative treatment operating requirements for more than 4 hours shall be kept for not less than 5 years.

[(2)] [Records of decisions, as described in subparagraphs (A) and (B) of this subdivision, shall be maintained by the department in such a manner so as to allow the department to determine each system's current status.]

[(A)] [Any decision under subsection (e)(7)(A) of this section to reduce the physical parameters monitoring frequency for a CWS serving 1,000 persons or fewer to less than once per month.]

[(B)] [Any decision under subsection (e)(7)(B)(i) of this section to reduce the physical parameter monitoring frequency for a non-community water system using only ground water and serving 1,000

persons or fewer to less than once per quarter.]

Sec. 29 Section 19-13-B102(n)(1) and (2) of the Regulations of Connecticut State Agencies is amended to read as follows:

(1) [Systems] CWSs shall have meters installed at all sources of water supply so that the amount of water delivered to the distribution system can be measured.

(2) [Systems] CWSs shall take, record and retain for reference representative weekly readings of instantaneous flow rate and total quantity of water delivered over the previous week. Such records shall be submitted to the department upon request. The [system] CWS shall take more frequent readings upon request of the department. Such records shall be maintained by the CWS for not less than 5 years.

Sec. 30. Section 19-13-B102(t) of the Regulations of Connecticut State Agencies is amended to read as follows:

(t) Department approval of applications, plans, waivers, requests and other documents.

(1) Unless otherwise specified, if an application, plan, request, waiver or other document requires department approval or other action on behalf of the department under any subsection of this section, the person seeking approval, or other action on behalf of the department, of such application, plan, request, waiver or other document shall sign [the document under oath] and file the document [in writing] with the department in accordance with the applicable requirements specified in this section. Such application, plan, request, waiver or other document shall be in writing and may be filed electronically with the department. The application, plan, request, waiver or other document requiring approval, or other action on behalf of the department, shall contain a [notice] provision that the person signing the document understands that any false statements made therein are punishable in accordance with section 53a-157b of the Connecticut General Statutes. Such application, plan, request, waiver or other document shall set forth the reason or reasons for the application, plan, request, waiver, or other document requiring approval, or other action on behalf of the department, and grounds to support the granting of such application, plan, request, waiver or other document by the department. For purposes of this subsection, the term "person" means the person who is authorized to bind and act on behalf of the owner of the system.

(2) Unless otherwise specified, the department shall issue a decision in writing [either approving or disapproving] regarding such application, plan, request, waiver or other document[, in whole or in part]. The department may issue such decision electronically. [The department may determine that the department requires additional information to either approve or disapprove such document. If the department determines that such additional information is required, the system shall provide the requested information to the department on or before the date specified by the department in the department's written request for additional information.] The department may request in writing additional information from the system as the department deems necessary to render a decision on such application, plan, request, waiver or other document. The system shall provide such additional information to the department on or before the date specified by the department in the request. Failure of the system to provide the requested additional information on or before the date specified by the department in the department's written request shall result in the system's application, plan, request, waiver or other document requiring approval, or other action on behalf of the department, to be denied by the department. Any department [approval, in whole or in part,] decision may contain

such conditions or orders as the department deems appropriate.

Sec. 31. Section 19-13-B102 of the Regulations of Connecticut State Agencies is amended by adding subsection (x) as follows:

(NEW)

(x) **Revised Total Coliform Rule.**

(1) General.

(A) The provisions of this subsection include both MCL and treatment technique requirements.

(B) Applicability. Unless otherwise indicated, the provisions of this subsection shall apply to all public water systems.

(C) Violations of this subsection. A system's failure to comply with the requirements in this subdivision and in subdivisions (2) through (11), inclusive, of this subsection is a violation of this subsection.

(2) Analytical methods and laboratory certification.

(A) Analytical methodology. Systems shall:

(i) Use 100 ml as the standard sample volume required for analysis, regardless of analytical method used;

(ii) Only determine the presence or absence of total coliforms and E. coli. A determination of density is not required;

(iii) Not exceed 30 hours from the time of sample collection to initiation of test medium incubation. Systems may hold samples below 10 degrees Celsius during transit;

(iv) Add sufficient sodium thiosulfate ($Na_2S_2O_3$) to the sample bottle before sterilization to neutralize any residual chlorine in the water sample, if water having residual chlorine, measured as free, combined or total chlorine, is to be analyzed; and

(v) Conduct total coliform and E. coli analyses in accordance with 1 of the analytical methods specified by EPA in 40 CFR 141.852(a)(5), as amended from time to time, and 40 CFR 141.852(c), as amended from time to time, or 1 of the alternative methods listed in 40 CFR 141, Subpart C, Appendix A, as amended from time to time.

(B) Laboratory certification. Systems shall have all compliance samples required to be analyzed under this subsection analyzed by a laboratory certified by EPA or registered by the department pursuant to section 19a-29a of the Connecticut General Statutes to analyze drinking water samples. The laboratory used by the system shall be certified or have a certificate of testing, or both, for each method and associated analytes used for compliance monitoring analyses under this subsection.

(C) Samples shall be collected by technical personnel employed by an environmental laboratory registered by the department pursuant to section 19a-29a of the Connecticut General Statutes, a certified distribution system operator or a certified water treatment plant operator, a person under the direct supervision of either a certified distribution system operator or a certified water treatment plant operator, a sanitarian, or an employee of the department.

(3) General monitoring requirements for all systems.

(A) Sample siting plans. A system shall have a sample siting plan that identifies sampling sites and a sample collection schedule that are representative of water throughout the distribution system and in compliance with the requirements of this subparagraph. Such plan shall be on a form prescribed by the department. The system shall make the system's sample siting plan available to the department for review and revision upon the request of the department and at the time of the system's

sanitary survey conducted pursuant to subsection (e)(7)(E) of this section. The department may request a system to provide additional information necessary to aid the department in its review of the sample siting plan and may revise the sample siting plan if the department concludes that such revision is necessary to ensure that the system's sampling sites are representative of water throughout the distribution system and in compliance with the requirements of this subparagraph. If the department revises a system's sample siting plan, the system shall sample in accordance with the revised plan.

(i) A system shall collect samples at regular time intervals throughout the month, except that a ground water system that serves 4,900 or fewer people may collect all required samples on a single day if the samples are taken from different sites.

(ii) A seasonal system that monitors quarterly shall designate in such system's sample siting plan under this subparagraph the time period or periods for monitoring based on site-specific considerations, including, but not limited to, monitoring during periods of highest demand or highest vulnerability to contamination, and shall obtain the department's approval of such sample siting plan. To obtain approval of its sample siting plan, such seasonal system that monitors quarterly shall submit an application to the department pursuant to subsection (t) of this section requesting approval of such seasonal system's sample siting plan under this subparagraph. Such application shall include, but not be limited to, documentation demonstrating that the time period or periods for monitoring designated in such seasonal system's sample siting plan is based on site-specific considerations.

(iii) Sample sites for sampling required by subdivisions (4) through (8), inclusive, of this subsection may take place at a consumer's premises, dedicated sampling station, or other designated compliance sampling location.

(iv) A system's sample siting plan under this subparagraph shall include any sampling points necessary to meet the requirements of subsections (e)(12) of this section.

(v) Routine total coliform and physical parameter sample sites. A system shall identify in the system's sample siting plan under this subparagraph monitoring locations for routine total coliform and physical parameter sample sites.

(vi) Repeat sample sites. A system shall identify in the system's sample siting plan under this subparagraph monitoring locations for repeat sampling. Unless the system satisfies the requirements of subclause (I), (II) or (III) of this clause, the system shall collect at least 1 repeat sample from the sampling tap where the original total coliform-positive sample was taken, and at least 1 repeat sample at a tap within 5 service connections upstream and at least 1 repeat sample at a tap within 5 service connections downstream of the original sampling site. If a total coliform-positive sample was taken at the end of the distribution system, or 1 service connection away from the end of the distribution system, the system shall take all required repeat samples and shall collect such repeat samples at alternative fixed locations identified in the system's sample siting plan under this subparagraph. Except as provided for in subclause (III) of this clause, a system required to conduct triggered source water monitoring under subsection (e)(12)(C) of this section shall take ground water source samples in addition to repeat samples required under this subsection.

(I) A system may submit, as part of the system's sample siting plan under this subparagraph, alternative fixed locations for repeat sampling. If the system submits alternative fixed locations for repeat sampling as part of the system's sample siting plan under this subparagraph, such system shall include documentation demonstrating that the alternative monitoring locations are representative of a pathway for contamination of the distribution system and that the sample siting plan remains representative of the water quality in the distribution system.

(II) A ground water system serving 1,000 or fewer people may include, as part of such ground water system's sample siting plan under this subparagraph, repeat sampling locations that differentiate between potential source water and distribution system contamination, including, but not

limited to, by sampling at entry points to the distribution system.

(III) A ground water system serving 1,000 or fewer people with a single well that is required to conduct triggered source water monitoring under subsection (e)(12)(C) of this section may submit an application to the department requesting approval to take 1 of such ground water system's repeat samples at the monitoring location required for triggered source water monitoring under subsection (e)(12)(C) of the section, if such ground water system demonstrates that the sample siting plan under this subparagraph remains representative of water quality in the distribution system. Such application shall include documentation demonstrating that the sample siting plan remains representative of water quality in the distribution system and shall be submitted in accordance with subsection (t) of this section. Such ground water system shall not use the result of a sample taken at the monitoring location required for triggered source water monitoring under subsection (e)(12)(C) of this section to meet the monitoring requirements in both subsection (e)(12)(C) of this section and this subdivision until such ground water system has received department approval to do so. Such ground water system taking repeat samples at the monitoring location required for triggered source water monitoring under subsection (e)(12)(C) of the section shall comply with subclauses (III)(a) through (c), inclusive, of this clause.

(a) If a repeat sample taken at the monitoring location required for triggered source water monitoring under subsection (e)(12)(C) of the section is E. coli-positive, such ground water system has violated the E. coli MCL and shall also comply with subsection (e)(12)(C) of this section. If such ground water system takes more than 1 repeat sample at the monitoring location required for triggered source water monitoring under subsection (e)(12)(C) of the section, such ground water system may reduce the number of additional source water samples required under subsection (e)(12)(C)(iii) of this section by the number of repeat samples taken at that location that were not E. coli-positive.

(b) If such ground water system takes more than 1 repeat sample at the monitoring location required for triggered source water monitoring under subsection (e)(12)(C) of this section, and more than 1 repeat sample is E. coli-positive, such ground water system has violated the E. coli MCL and shall also comply with subsection (j)(14)(A) of this section.

(c) If all repeat samples taken at the monitoring location required for triggered source water monitoring under subsection (e)(12)(C) of this section are E. coli-negative and a repeat sample taken at a monitoring location other than the location required for triggered source water monitoring under subsection (e)(12)(C) of this section is E. coli-positive, such ground water system has violated the E. coli MCL, but is not required to comply with subsection (e)(12)(C)(iii) of this section.

(B) General sampling requirements for total coliform.

(i) A system shall collect total coliform samples in accordance with the system's sample siting plan under subparagraph (A) of this subdivision.

(ii) A system shall measure the residual disinfectant concentration at the same point and at the same time as the system collects total coliform samples. The presence of a residual disinfectant concentration in a system's sample when the system does not have department approval pursuant to subsection (d) of this section to use continuous chlorination shall invalidate the sample. A sample invalidated by the department under this clause does not count toward meeting the minimum monitoring requirements of this subsection.

(iii) A system shall take at least the minimum number of required samples even if the system has had an E. coli MCL violation or has exceeded the coliform treatment technique triggers in subdivision (9)(A) of this subsection before the end of the monitoring compliance period.

(iv) A system may take more than the minimum number of routine samples required by this subsection to investigate potential problems in the distribution system and use monitoring as a tool to assist in uncovering problems.

(I) A system shall include the results of such samples in calculating whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded if:

(1) The system collected the samples in accordance with the system's sample siting plan under subparagraph (A) of this subdivision; and

(2) The system collected the samples from sites that are representative of water throughout the distribution system.

(II) If any of the results of such samples are total coliform-positive, the system shall collect repeat samples in accordance with subparagraph (A)(v) of this subdivision.

(C) General sampling requirements for physical parameters. A system shall collect physical parameter samples in accordance with the system's sample siting plan under subparagraph (A) of this subdivision.

(D) Special purpose samples. A system shall not use special purpose samples to determine whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded. Repeat samples taken pursuant to subdivision (8) of this subsection are not considered special purpose samples, and shall be used to determine whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded.

(E) Invalidation of total coliform samples. A total coliform-positive sample invalidated by the department under this subparagraph does not count toward meeting the minimum monitoring requirements of this subsection.

(i) To obtain invalidation of a total coliform-positive sample, a system shall submit an application to the department in accordance with subsection (t) of this section requesting that the department invalidate the total coliform-positive sample. The department may invalidate a total coliform-positive sample only if the conditions of subclause (I), (II), or (III) of this clause are satisfied. A total coliform-positive sample is not invalidated under this subparagraph unless such invalidation by the department is in writing, states the specific cause of the total-coliform positive sample and what action the system has taken, or will take, to correct this problem, and is signed by a supervisor of the department official who makes this determination.

(I) The system shall submit to the department with its application submitted pursuant to this clause a written notice from the laboratory demonstrating that improper sample analysis occurred and that such improper sample analysis caused the total coliform-positive result.

(II) The department, on the basis of the results of repeat samples collected as required under subdivision (8)(A) of this subsection, determines that the total coliform-positive sample resulted from a domestic or other non-distribution system plumbing problem. To invalidate a total coliform-positive sample under this subclause, the system shall include with the system's application submitted pursuant to this clause, documentation demonstrating that all repeat samples collected at the same tap as the original total coliform-positive sample are also total coliform-positive, and all repeat samples collected at a location other than the original tap are total coliform-negative. The department shall not invalidate a sample on the basis of repeat sample results unless all repeat samples collected at the same tap as the original total coliform-positive sample are also total coliform-positive, and all repeat samples collected at a location other than the original tap are total coliform-negative.

(III) The department has substantial grounds to believe that a total coliform-positive result is due to a circumstance or condition that does not reflect water quality in the distribution system. To invalidate a total coliform-positive sample under this subclause, the system shall include with the system's application submitted pursuant to this clause, documentation demonstrating that the total coliform-positive result is due to a circumstance or condition that does not reflect water quality in the distribution system. The documentation submitted shall also state the specific cause of the total coliform-positive sample, and what action the system has taken, or will take, to correct this problem. The department shall not invalidate a total coliform-positive sample under this subclause solely on

the grounds that all repeat samples are total coliform-negative. If the department invalidates the sample due to a circumstance or condition that does not reflect water quality in the distribution system, the system shall still collect all repeat samples required under subdivision (8)(A) of this subsection, and use the samples collected to determine whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded.

(ii) A laboratory shall invalidate a total coliform sample, unless total coliforms are detected, if the sample produces a turbid culture in the absence of gas production using an analytical method where gas formation is examined, including, but not limited to, the Multiple-Tube Fermentation Technique, produces a turbid culture in the absence of an acid reaction in the Presence-Absence (P-A) Coliform Test, or exhibits confluent growth or produces colonies too numerous to count with an analytical method using a membrane filter, including, but not limited to, the Membrane Filter Technique. If a laboratory invalidates a sample because of such interference, the system shall collect another sample from the same location as the original sample not later than 24 hours after being notified by the laboratory of the interference problem, and shall have such sample analyzed for the presence of total coliforms. The system shall continue to re-sample not later than 24 hours after the most recent notification by the laboratory of an interference problem and have the samples analyzed until the system obtains a valid result. The department may extend the 24-hour time limit if the system cannot collect another sample from the same location as the original sample not later than 24 hours after being notified by the laboratory of the interference problem due to circumstances beyond the system's control. To obtain an extension, a system shall submit an application to the department in accordance with subsection (t) of this section requesting an extension beyond the 24-hour time limit and specifying the circumstances beyond the system's control that prevented the system from collecting another sample from the same location as the original sample not later than 24 hours after notification by the laboratory of the interference problem. The system shall file such application with the department not later than 24 hours after being notified by the laboratory of the interference problem. If the department's office is closed, the system shall file such application with the department before the end of the next business day.

(4) Routine monitoring requirements for non-community water systems using only ground water that is not under the direct influence of surface water and serving 1,000 or fewer people.

(A) General.

(i) The provisions of this subdivision apply to non-community water systems using only ground water that is not under the direct influence of surface water and serving 1,000 or fewer people.

(ii) Following any total coliform-positive sample taken under the provisions of this subdivision, such non-community water system shall comply with the repeat monitoring requirements and E. coli analytical requirements in subdivision (8) of this subsection.

(iii) Once such non-community water system has completed all monitoring required by this subdivision and subdivision (8) of this subsection for a calendar month, such non-community water system shall determine whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded. If any coliform treatment technique triggers in subdivision (9)(A) of this subsection have been exceeded, such non-community water system shall complete level 1 assessments and level 2 assessments as required by subdivision (9)(B) of this subsection.

(iv) For the purpose of determining eligibility for remaining on or qualifying for quarterly monitoring under the provisions of subparagraphs (D)(iv) and (E)(ii), respectively, of this subdivision for TNCs using only ground water that is not under the direct influence of surface water and serving 1,000 or fewer people, such TNC may submit an application to the department requesting that the department not count monitoring violations under subdivision (10)(C)(i) of this subsection if such TNC collects the missed sample not later than the end of the monitoring period after the monitoring

period in which the sample was missed. Such TNC using only ground water that is not under the direct influence of surface water and serving 1,000 or fewer people shall collect the make-up sample in a different week than the routine sample for that monitoring period and shall collect the sample as soon as possible during the monitoring period. Such application shall be submitted to the department in accordance with subsection (t) of this section. The department's approval of the application does not affect the provisions of subdivisions (10)(C)(i) and (11)(A)(iv) of this subsection.

(B) Monitoring frequency for total coliforms and physical parameters. Such non-community water system shall monitor each calendar quarter that such non-community water system provides water to the public, except for such non-community water systems that are seasonal systems or as provided under subparagraphs (D), (E) and (G) of this subdivision. Such non-community water systems that are seasonal systems shall meet the monitoring requirements of subparagraph (F) of this subdivision.

(C) Special monitoring evaluations. The department shall perform a special monitoring evaluation during each sanitary survey conducted pursuant to subsection (e)(7)(E) of this section to review the status of such non-community water system, including the distribution system, to determine whether such non-community water system is on an appropriate monitoring schedule. After performing a special monitoring evaluation during the sanitary survey, the department may revise such non-community water system's monitoring schedule, or the department may allow such non-community water system to stay on such non-community water system's existing monitoring schedule, consistent with the provisions of this subdivision. The department shall not allow such non-community water system to begin less frequent monitoring under the special monitoring evaluation unless such non-community water system has already met the applicable criteria for less frequent monitoring in this subdivision and has received department approval to do so pursuant to this subdivision. For such non-community water system that is a seasonal system and that is on quarterly monitoring, the special monitoring evaluation shall include review of the system's department-approved sample siting plan under subdivision (3)(A)(ii) of this subsection, which shall designate the time period or periods for monitoring based on site-specific considerations, including, but not limited to, monitoring during periods of highest demand or highest vulnerability to contamination. Such non-community water system that is a seasonal system shall collect compliance samples during these time periods.

(D) Increased monitoring requirements for such non-community water system on quarterly monitoring. Such non-community water system on quarterly monitoring that experiences any of the events identified in clauses (i) through (iv), inclusive, of this subparagraph shall begin monthly monitoring the month following the event. Such non-community water system shall continue monthly monitoring until the requirements for quarterly monitoring in subparagraph (E) of this subdivision are met. Such non-community water system on monthly monitoring for reasons other than those clauses (i) through (iv), inclusive, of this subparagraph is not considered to be on increased monitoring for the purposes of subparagraph (E) of this subdivision. Such non-community water system shall begin monthly monitoring the month following the event if such non-community water system:

(i) Triggers a level 2 assessment or 2 level 1 assessments under the provisions of subdivision (9) of this subsection in a rolling 12-month period;

(ii) Has an E. coli MCL violation;

(iii) Has a coliform treatment technique violation; or

(iv) Has 2 monitoring violations under this subsection or 1 monitoring violation under this subsection and 1 level 1 assessment under the provisions of subdivision (9) of this subsection in a rolling 12-month period.

(E) Requirements for returning to quarterly monitoring. Such non-community water system on monthly monitoring triggered under subparagraph (D) of this subdivision that meets the criteria in

clauses (i) and (ii) of this subparagraph may submit an application to the department requesting approval to reduce such non-community water system's monitoring frequency from monthly to quarterly monitoring. Such application shall include documentation demonstrating that such non-community water system meets the criteria in clauses (i) and (ii) of this subparagraph and shall be submitted in accordance with subsection (t) of this section.

(i) Within the last 12 months, such non-community water system shall have a completed sanitary survey, a site visit by the department or a voluntary level 2 assessment conducted by a level 2 assessor or the department, be free of sanitary defects, and have a source or sources of supply that are protected and that meet the separating distance requirements in subsection (e)(12)(D)(ii)(I) of this section; and

(ii) Such non-community water system shall have a clean compliance history for a minimum of 12 months.

(F) Such non-community water systems that are seasonal systems.

(i) All such non-community water systems that are seasonal systems shall complete a start-up procedure that complies with the criteria in subclauses (I) through (V), inclusive, of this clause each time such non-community water systems that are seasonal systems start up such systems. After completing the start-up procedure, such non-community water system that is a seasonal system shall submit to the department a completed certification of completion of a start-up procedure that demonstrates compliance with the criteria in subclauses (I) through (V), inclusive, of this clause. Such certification shall be signed by the owner, or the person who is authorized to bind and act on behalf of the owner, of such non-community water system that is a seasonal system under penalty of false statements and shall contain a provision that the person signing the certification understands that any false statements made therein are punishable in accordance with section 53a-157b of the Connecticut General Statutes. No such non-community water system that is a seasonal system shall serve water to the public until such non-community water system that is a seasonal system has completed the start-up procedure and has filed the completed certification with the department in accordance with this clause. The start-up procedure of such non-community water system that is a seasonal system shall include, but not be limited to, the following elements:

(I) Inspection of such non-community water system that is a seasonal system, including, but not limited to, inspection of the source or sources of supply, pump house or houses, and storage tank or tanks of such non-community water system that is a seasonal system, and making of any necessary repairs;

(II) Flushing of the distribution system;

(III) Cleaning and disinfection of all storage facilities, including all chlorine contact chambers and storage tanks;

(IV) Shock chlorination of the ground water well or wells, if any, and the distribution system; and

(V) Such water shall be tested for total coliform bacteria and nitrate and nitrite. No water shall be served to the public until a completed certification is submitted to the department and all such samples are total coliform-negative and shall not exceed the MCLs for nitrate and nitrite in subsection (e)(2) of this section. Such non-community water system that is a seasonal system shall not use the results of any total coliform samples taken pursuant to this subclause that are total coliform positive in determining whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded because such total coliform positive samples are considered special purpose samples, not routine or repeat samples. Such non-community water system that is a seasonal system may use the results of any total coliform samples taken pursuant to this subclause that are total coliform negative as such system's routine total coliform sample or samples required for the monitoring period. Such non-community water system that is a seasonal system may use the results of any nitrate and nitrite samples taken pursuant to this subclause

that do not exceed the MCLs for nitrate and nitrite, respectively, in subsection (e)(2) of this section as such system's nitrate and nitrite samples required annually pursuant to subsection (e)(7)(C) of this section.

(ii) Monitoring frequency for total coliforms. Except as provided in subparagraph (C) of this subdivision, such non-community water system that is a seasonal system shall monitor every month that such non-community water system that is a seasonal system is in operation unless such non-community water system that is a seasonal system obtains approval from the department to monitor quarterly, because such non-community water system that is a seasonal system meets the criteria in subclauses (I) and (II) of this clause. To obtain such approval, such non-community water system that is a seasonal system shall submit an application to the department in accordance with subsection (t) of this section. Such application shall include documentation demonstrating that such non-community water system that is a seasonal system meets the criteria in subclauses (I) and (II) of this clause.

(I) Such non-community water system that is a seasonal system shall have a department-approved sample siting plan under subparagraph (3)(A) of this subsection that designates the time period or periods for monitoring based on site-specific considerations, including, but not limited to, monitoring during periods of highest demand or highest vulnerability to contamination. Such non-community water system that is a seasonal system shall collect compliance samples during this time period.

(II) Such non-community water system that is a seasonal system shall meet the criteria in subparagraph (E) of this subdivision.

(iii) Monitoring frequency for physical parameters. Except as provided in subparagraph (C) of this subdivision, such non-community water system that is a seasonal system shall monitor annually.

(G) Additional routine monitoring the month following a total coliform-positive sample. Such non-community water system collecting samples on a quarterly frequency shall conduct additional routine monitoring the month following 1 or more total coliform-positive samples, with or without a level 1 treatment technique trigger. Such non-community water system shall collect at least 3 routine samples during the next month, unless the department grants a waiver of this requirement because such non-community water system met the conditions in clause (i), (ii), or (iii) of this subparagraph. To obtain a waiver, such non-community water system shall submit an application to the department in accordance with subsection (t) of this section. Such application shall include documentation demonstrating that such non-community water system has met the conditions in clause (i), (ii), or (iii) of this subparagraph. Such non-community water system may either collect samples at regular time intervals throughout the month or may collect all required routine samples on a single day if samples are taken from different sites. Such non-community water system shall use the results of additional routine samples in coliform treatment technique trigger calculations under subdivision (9)(A) of this subsection.

(i) The department may waive the requirement to collect at least 3 routine samples during the next month in which such non-community water system provides water to the public if a level 2 assessor or the department, if the department elects to perform it, performs a site visit before the end of the next month in which such non-community water system provides water to the public. Although a sanitary survey need not be performed, the site visit shall be sufficiently detailed to allow the department to determine whether additional monitoring or any corrective action, or both, is needed. A level 2 assessor that is an employee of such non-community water system is prohibited from performing the site visit.

(ii) The department may waive the requirement to collect at least 3 routine samples during the next month in which such non-community water system provides water to the public if the department has determined the reason or reasons that such non-community water system's sample was total coliform-

positive and has established that such non-community water system has corrected the problem or will correct the problem before the end of the next month in which such non-community water system serves water to the public. An application for a waiver shall include documentation demonstrating the specific cause of the total coliform-positive sample and that such non-community water system has corrected or will correct, or both, the problem, including what action such non-community water system has taken or will take, or both, to correct this problem. The requirement to collect at least 3 routine samples during the next month is not waived under this clause unless such non-community water system has a waiver from the department that is in writing, states the specific cause of the total-coliform positive sample and what action such non-community water system has taken, or will take, or both, to correct this problem, and is signed by the Commissioner of Public Health's designee, who shall be a supervisor or manager of the department official who makes the determination regarding the waiver.

(iii) The department shall not waive the requirement to collect 3 additional routine samples the next month in which such non-community water system provides water to the public solely on the grounds that all repeat samples are total coliform-negative. The department may waive the requirement to collect at least 3 routine samples during the next month in which such non-community water system provides water to the public if the department determines that such non-community water system has corrected the contamination problem before such non-community water system takes the set of repeat samples required in subdivision (8) of this subsection, and all repeat samples were total coliform-negative. An application for a waiver shall include documentation demonstrating that such non-community water system corrected the contamination problem before such non-community water system took the set of repeat samples required in subdivision (8) of this subsection, and all repeat samples were total coliform-negative.

(5) Routine monitoring requirements for CWSs serving 1,000 or fewer people using only ground water.

(A) General.

(i) The provisions of this subdivision apply to CWSs using only ground water, except ground water under the direct influence of surface water, and serving 1,000 or fewer people.

(ii) Following any total coliform-positive sample taken under the provisions of this subdivision, such CWS shall comply with the repeat monitoring requirements and E. coli analytical requirements in subdivision (8) of this subsection.

(iii) Once such CWS has completed all monitoring required by this subdivision and subdivision (8) of this subsection for a calendar month, such CWS shall determine whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded. If any coliform treatment technique triggers in subdivision (9)(A) of this subsection have been exceeded, such CWS shall complete level 1 assessments and level 2 assessments as required by subdivision (9)(B) of this subsection.

(B) Monitoring frequency for total coliforms and physical parameters. The monitoring frequency for total coliforms and physical parameters is 1 sample per month, except as provided for under subparagraphs (D) through (F), inclusive, of this subdivision.

(C) Special monitoring evaluations. The department shall perform a special monitoring evaluation during each sanitary survey conducted pursuant to subsection (e)(7)(E) of this section to review the status of such CWS, including the distribution system, to determine whether such CWS is on an appropriate monitoring schedule. After the department has performed the special monitoring evaluation during the sanitary survey, the department may revise such CWS's monitoring schedule, or the department may allow such CWS to stay on such CWS's existing monitoring schedule, consistent with the provisions of this subdivision. The department shall not allow such CWS to begin less frequent monitoring under the special monitoring evaluation unless such CWS has already met the

applicable criteria for less frequent monitoring in this subdivision.

(D) Criteria for reduced monitoring. Such CWS that is in compliance with the operator certification requirements of sections 25-32-7a through 25-32-14, inclusive, of the Regulations of Connecticut State Agencies and meets the criteria in clauses (i) through (iii), inclusive, of this subparagraph may submit an application to the department in accordance with subsection (t) of this section requesting approval to reduce the monitoring frequency from monthly monitoring to not less than quarterly monitoring. Such application shall include documentation demonstrating that such CWS is in compliance with the operator certification requirements of sections 25-32-7a through 25-32-14, inclusive, of the Regulations of Connecticut State Agencies and that such CWS meets the criteria in clauses (i) through (iii), inclusive, of this subparagraph. Such CWS that fails to employ, contract with or otherwise utilize a chief operator, as defined in section 25-32-7a of the Regulations of Connecticut State Agencies, shall return to monthly monitoring the month following such failure.

(i) Such CWS has a clean compliance history for a minimum of 12 months.

(ii) The most recent sanitary survey conducted by the department pursuant to subsection (e)(7)(E) of this section shows:

(I) (a) Such CWS is free of significant deficiencies that also constitute sanitary defects; or (b) Such CWS has either completed corrective action or has a department-approved corrective action plan and schedule to correct such significant deficiencies that also constitute sanitary defects and is in compliance with the department-approved corrective action plan and schedule pursuant to subsection (e)(7)(E) of this section; and

(II) Such CWS has a source or sources of supply that are protected, meet the separating distances in subsection (e)(12)(D)(ii)(I) of this section, and are in compliance with generally-accepted construction standards for systems.

(iii) Such CWS meets at least 1 of the following criteria:

(I) The department performed an annual site visit that is equivalent to a level 2 assessment or a level 2 assessor or the department, if the department elected to perform it, performed an annual level 2 assessment, and such CWS has corrected all identified sanitary defects, or such CWS has a department-approved plan and schedule to correct the sanitary defects identified and such CWS is in compliance with the department-approved plan and schedule;

(II) Such CWS has all of such CWS's backflow prevention devices tested in accordance with section 19-13-B38a of the Regulations of Connecticut State Agencies and all consumer premises inspected for cross connections in accordance with subsections (f)(2) and (3) of this section;

(III) Such CWS has installed effective and reliable treatment of at least a 4-log removal or inactivation of viruses for each of such CWS's ground water sources pursuant to subsection (j)(14)(B)(iii) of this section; or

(IV) Such CWS has barriers in place that eliminate such CWS's vulnerability to contamination. To meet the criteria in this subclause, such CWS shall include with such CWS's application submitted pursuant to this clause, documentation demonstrating that such CWS has barriers in place that eliminate such CWS's vulnerability to contamination.

(E) Return to routine monthly monitoring requirements. Such CWS on quarterly monitoring that experiences any of the events in clauses (i) through (iv), inclusive, of this subparagraph shall begin monthly monitoring the month following the event. Such CWS shall continue monthly monitoring until such CWS meets the reduced monitoring requirements in subparagraph (D) of this subdivision.

(i) Such CWS triggers a level 2 assessment or two level 1 assessments in a rolling 12-month period.

(ii) Such CWS has an E. coli MCL violation.

(iii) Such CWS has a coliform treatment technique violation.

(iv) Such CWS has 2 monitoring violations under this subsection in a rolling 12-month period.

(F) Additional routine monitoring the month following a total coliform-positive sample. Such CWS collecting samples on a quarterly frequency shall conduct additional routine monitoring the month following 1 or more total coliform-positive samples, with or without a level 1 treatment technique trigger. Such CWS shall collect at least 3 routine samples during the next month unless the department grants a waiver of this requirement because such CWS met 1 of the conditions in clause (i), (ii), or (iii) of this subparagraph. To obtain a waiver, such CWS shall submit an application to the department in accordance with subsection (t) of this section. Such application shall include documentation demonstrating that such CWS has met 1 of the conditions in clause (i), (ii), or (iii) of this subparagraph. Such CWS may either collect samples at regular time intervals throughout the month or may collect all required routine samples on a single day if samples are taken from different sites. Such CWS shall use the results of additional routine samples in coliform treatment technique trigger calculations under subdivision (9)(A) of this subsection.

(i) The department may waive the requirement to collect at least 3 routine samples during the next month in which such CWS provides water to the public if a level 2 assessor or the department, if the department elects to perform it, performs a site visit before the end of the next month in which such CWS provides water to the public. Although a sanitary survey need not be performed, the site visit shall be sufficiently detailed to allow the department to determine whether additional monitoring or any corrective action, or both, is needed. A level 2 assessor that is an employee of such CWS is prohibited from performing the site visit.

(ii) The department may waive the requirement to collect at least 3 routine samples during the next month in which such CWS provides water to the public if the department has determined the reason or reasons that such CWS's sample was total coliform-positive and has established that such CWS has corrected the problem or will correct the problem before the end of the next month in which such non-community water system serves water to the public. An application for a waiver shall include documentation demonstrating the specific cause of the total coliform-positive sample and that such CWS has corrected or will correct, or both, the problem, including what action such CWS has taken or will take, or both, to correct this problem. The requirement to collect at least 3 routine samples during the next month is not waived under this clause unless such CWS has a waiver from the department that is in writing, states the specific cause of the total-coliform positive sample and what action such CWS has taken, or will take, or both, to correct this problem, and is signed by the Commissioner of Public Health's designee, who shall be a supervisor or manager of the department official who makes the determination regarding the waiver.

(iii) The department shall not waive the requirement to collect at least 3 additional routine samples the next month in which such CWS provides water to the public solely on the grounds that all repeat samples are total coliform-negative. The department may waive the requirement to collect at least 3 additional routine samples the next month in which such CWS provides water to the public, if such CWS has corrected the contamination problem before such CWS takes the set of repeat samples required in subdivision (8) of this subsection, and all repeat samples were total coliform-negative. An application for a waiver shall include documentation demonstrating that such CWS corrected the contamination problem before such CWS took the set of repeat samples required in subdivision (8) of this subsection, and all repeat samples were total coliform-negative.

(6) Routine monitoring requirements for Subpart H systems serving 1,000 or fewer people.

(A) General.

(i) The provisions of this subdivision apply to Subpart H systems serving 1,000 or fewer people.

(ii) Following any total coliform-positive sample taken under the provisions of this subdivision, such Subpart H system shall comply with the repeat monitoring requirements and E. coli analytical requirements in subdivision (8) of this subsection.

(iii) Once such Subpart H system has completed all monitoring required by this subdivision and

subdivision (8) of this subsection for a calendar month, such Subpart H system shall determine whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded. If any coliform treatment technique triggers in subdivision (9)(A) of this subsection have been exceeded, such Subpart H system shall complete level 1 assessments and level 2 assessments as required pursuant to subdivision (9)(B) of this subsection.

(iv) Such Subpart H systems that are seasonal systems. All such Subpart H systems that are seasonal systems shall complete a start-up procedure that complies with the criteria in subclauses (I) through (V), inclusive, of this clause each time such Subpart H systems that are seasonal systems start up such systems. After completing the start-up procedure, such Subpart H system that is a seasonal system shall submit to the department a completed certification of completion of a start-up procedure that demonstrates compliance with the criteria in subclauses (I) through (V), inclusive, of this clause. Such certification shall be signed by the owner, or the person who is authorized to bind and act on behalf of the owner, of such Subpart H system that is a seasonal system and shall contain a provision that the person signing the certification understands that any false statements made therein are punishable in accordance with section 53a-157b of the Connecticut General Statutes. No such Subpart H system that is a seasonal system shall serve water to the public until such Subpart H system that is a seasonal system has completed the start-up procedure and filed the completed certification with the department in accordance with this clause. The start-up procedure of such Subpart H system that is a seasonal system shall include, but not be limited to, the following elements:

(I) Inspection of such Subpart H system that is a seasonal system, including, but not limited to, inspection of the source or sources of supply, pump house or houses, and storage tank or tanks of such Subpart H system that is a seasonal system, and making of any necessary repairs;

(II) Flushing of the distribution system;

(III) Cleaning and disinfection of all storage facilities, including, but not limited to, all chlorine contact chambers and storage tanks, if necessary;

(IV) Shock chlorination of the ground water well or wells, if any, and the distribution system; and

(V) Such water shall be tested for total coliform bacteria and nitrate and nitrite. No water shall be served to the public until a completed certification is submitted to the department and all such samples are total coliform-negative and shall not exceed the MCLs for nitrate and nitrite in subsection (e)(2) of this section. Such Subpart H system that is a seasonal system shall not use the results of the total coliform samples taken pursuant to this subclause that are total coliform positive in determining whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded because such total coliform samples are considered special purpose samples, not routine or repeat samples. Such Subpart H system that is a seasonal system may use the results of any total coliform samples taken pursuant to this subclause that are total coliform negative as such system's routine total coliform sample or samples required for the monitoring period. Such Subpart H system that is a seasonal system may use the results of any nitrate and nitrite samples taken pursuant to this subclause that do not exceed the MCLs for nitrate and nitrite, respectively, in subsection (e)(2) of this section as such system's nitrate and nitrite samples required annually pursuant to subsection (e)(7)(C) of this section.

(B) (i) Routine monitoring frequency for total coliforms. Such Subpart H system, including such Subpart H system that is a consecutive system or a seasonal system, shall monitor monthly. Such Subpart H system shall not reduce monitoring.

(ii) Routine monitoring frequency for physical parameters.

(I) Such Subpart H system, including such Subpart H system that is a consecutive system, shall monitor monthly. Such Subpart H system, including such Subpart H system that is a consecutive system, shall not reduce monitoring.

(II) Such Subpart H system that is a seasonal system shall monitor annually.

(C) Such Subpart H system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall collect at least 1 total coliform sample near the first service connection each day the turbidity level of the source water, measured as specified in 40 CFR 141.74(b)(2), as amended from time to time, exceeds 1 NTU. When 1 or more turbidity measurements in any day exceed 1 NTU, such Subpart H system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall collect the total coliform sample not later than 24 hours after the first exceedance. The department may extend the 24-hour time limit if the department determines, for logistical reasons beyond such Subpart H system's control, such Subpart H system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section cannot have the sample analyzed not later than 30 hours after collection and the system identifies an alternative sample collection schedule. To obtain an extension, such Subpart H system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall submit an application to the department in accordance with subsection (t) of this section requesting an extension beyond the 24-hour time limit, specifying the logistical problem that is beyond such Subpart H system's control that will prevent such Subpart H system from having the sample analyzed not later than 30 hours after collection and identifying an alternative sample collection schedule. Such Subpart H system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall file such application with the department not later than 24 hours after being notified that 1 or more turbidity measurements in any 1 day exceed 1 NTU. If the department's office is closed at that time, such Subpart H system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall file such application with the department before the end of the next business day. Such Subpart H system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall include sample results from the total coliform monitoring in determining whether the coliform treatment technique trigger in subdivision (9)(A) of this subsection has been exceeded.

(7) Routine monitoring requirements for systems serving more than 1,000 persons.

(A) General.

(i) The provisions of this subdivision apply to systems serving more than 1,000 persons.

(ii) Following any total coliform-positive sample taken under the provisions of this subdivision, such systems shall comply with the repeat monitoring requirements and E. coli analytical requirements in subdivision (8) of this subsection.

(iii) Once such system has completed all monitoring required by this subdivision and subdivision (8) of this subsection for a calendar month, such system shall determine whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded. If any coliform treatment technique triggers in subdivision (9)(A) of this subsection have been exceeded, such system shall complete level 1 assessments and level 2 assessments as required by subdivision (9)(B) of this subsection.

(iv) Such systems that are seasonal systems. All such systems that are seasonal systems shall complete a start-up procedure that complies with the criteria in subclauses (I) through (V), inclusive, of this clause each time such systems that are seasonal systems start up such systems. After completing a start-up procedure, such system that is a seasonal system shall submit to the department a completed certification of completion of a start-up procedure that demonstrates compliance with the criteria in subclauses (I) through (V), inclusive, of this clause. Such certification shall be signed by the owner, or the person who is authorized to bind and act on behalf of the owner, of such system that is a seasonal system and shall contain a provision that the person signing the certification understands

that any false statements made therein are punishable in accordance with section 53a-157b of the Connecticut General Statutes. No such system that is a seasonal system shall serve water to the public until such system that is a seasonal system has completed the start-up procedure and has filed the completed certification with the department in accordance with this clause. The start-up procedure of such system that is a seasonal system shall include, but not be limited to, the following elements:

(I) Inspection of such system that is a seasonal system, including, but not limited to, inspection of the source or sources of supply, pump house or houses, and storage tank or tanks of such system that is a seasonal system, and making of any necessary repairs;

(II) Flushing of the distribution system;

(III) Cleaning and disinfection of all storage facilities, including, but not limited to, all chlorine contact chambers and storage tanks, if necessary;

(IV) Shock chlorination of the ground water well or wells, if any, and the distribution system; and

(V) Such water shall be tested for total coliform bacteria and nitrate and nitrite. No water shall be served to the public until a completed certification is submitted to the department and all such samples are total coliform-negative and shall not exceed the MCLs for nitrate and nitrite in subsection (e)(2) of this section. Such system that is a seasonal system shall not use the results of the total coliform samples taken pursuant to this subclause that are total coliform positive in determining whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded because such total coliform samples are considered special purpose samples, not routine or repeat samples. Such system that is a seasonal system may use the results of any total coliform samples taken pursuant to this subclause that are total coliform negative as such system's routine total coliform sample or samples required for the monitoring period. Such system that is a seasonal system may use the results of any nitrate and nitrite samples taken pursuant to this subclause that do not exceed the MCLs for nitrate and nitrite, respectively, in subsection (e)(2) of this section as such system's nitrate and nitrite samples required annually pursuant to subsection (e)(7)(C) of this section.

(B) (i) Monitoring frequency for total coliforms. Such systems, including such systems that are seasonal systems, shall monitor monthly in accordance with the monitoring frequencies in Table X-1 of this clause. The monitoring frequency is based on the population served by such system.

TABLE X-1. MONITORING FREQUENCY FOR SYSTEMS SERVING MORE THAN 1,000 PERSONS.

POPULATION SERVED	MINIMUM NUMBER OF SAMPLES PER MONTH
1,001 to 2,500	2
2,501 to 3,300	3
3,301 to 4,100	4
4,101 to 4,900	5
4,901 to 5,800	6
5,801 to 6,700	7
6,701 to 7,600	8
7,601 to 8,500	9
8,501 to 12,900	10
12,901 to 17,200	15

POPULATION SERVED	MINIMUM NUMBER OF SAMPLES PER MONTH
17,201 to 21,500	20
21,501 to 25,000	25
25,001 to 33,000	30
33,001 to 41,000	40
41,001 to 50,000	50
50,001 to 59,000	60
59,001 to 70,000	70
70,001 to 83,000	80
83,001 to 96,000	90
96,001 to 130,000	100
130,001 to 220,000	120
220,001 to 320,000	150
320,001 to 450,000	180
450,001 to 600,000	210
600,001 to 780,000	240
780,001 to 970,000	270
970,001 to 1,230,000	300
1,230,001 to 1,520,000	330
1,520,001 to 1,850,000	360
1,850,001 to 2,270,000	390
2,270,001 to 3,020,000	420
3,020,001 to 3,960,000	450
3,960,001 or more	480

(ii) Monitoring frequency for physical parameters.

(I) Such systems, other than those such systems that are seasonal systems, shall monitor monthly in accordance with the monitoring frequencies in Table X-I of clause (i) of this subparagraph. The monitoring frequency is based on the population served by such system.

(II) Such systems that are seasonal systems shall monitor annually in accordance with the monitoring frequencies in Table X-I of clause (i) of this subparagraph. The monitoring frequency is based on the population served by such system that is a seasonal system.

(C) Such system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall collect at least 1 total coliform sample near the first service connection each day the turbidity level of the source water, measured as specified in 40 CFR 141.74(b)(2), as amended from time to time, exceeds 1 NTU. When 1 or more turbidity measurements in any day exceed 1 NTU, such system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall collect the total coliform sample not later than 24 hours after the first exceedance. The department may extend the 24-hour time limit if the department determines, for logistical reasons beyond such system's control, such system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section cannot have the sample analyzed not later than 30 hours after

collection and the system identifies an alternative sample collection schedule. To obtain an extension, such system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall submit an application to the department in accordance with subsection (t) of this section requesting an extension beyond the 24-hour time limit, specifying the logistical problem that is beyond such system's control that will prevent such system from having the sample analyzed not later than 30 hours after collection and identifying an alternative sample collection schedule. Such system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall file such application with the department not later than 24 hours after being notified that 1 or more turbidity measurements in any 1 day exceed 1 NTU. If the department's office is closed at that time, such system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall file such application with the department before the end of the next business day. Such system that uses a GWUDI source and that does not provide and operate treatment pursuant to subsection (j)(2) of this section shall include sample results from the total coliform monitoring in determining whether the coliform treatment technique trigger in subdivision (9)(A) of this subsection has been exceeded.

(D) Reduced monitoring. Such systems shall not reduce monitoring, except for non-community water systems using only ground water, but not ground water under the direct influence of surface water, serving 1,000 or fewer people in some months and more than 1,000 persons in other months. In months when the non-community water system using only ground water, but not ground water under the direct influence of surface water, serves more than 1,000 persons, such non-community water system shall monitor at the frequency specified in subparagraph (B) of this subdivision. In months when the non-community water system using only ground water, but not ground water under the direct influence of surface water, serves 1,000 or fewer people, such non-community water system may submit an application to the department requesting approval to reduce such non-community water system's monitoring frequency to a frequency allowed under subdivision (4) of this subsection for a similarly situated non-community water system using only ground water, but not ground water under the direct influence of surface water, that always serves 1,000 or fewer people, taking into account the provisions in subdivisions (4)(D) and (E) of this subsection. The application shall be submitted in accordance with subsection (t) of this section.

(8) Repeat monitoring and E. coli requirements.

(A) Repeat monitoring.

(i) If a sample taken under subdivisions (4) through (7), inclusive, of this subsection is total coliform-positive, a system shall collect a set of repeat samples not later than 24 hours after being notified by the laboratory of the positive result. The system shall collect not less than 3 repeat samples for each total coliform-positive sample found. The system shall collect the repeat samples in accordance with the system's sample siting plan under subdivision (3) of this subsection. The department may extend the 24-hour time limit if the system cannot collect the repeat samples within 24 hours due to circumstances beyond the system's control. To obtain an extension, a system shall submit an application to the department in accordance with subsection (t) of this section requesting an extension beyond the 24-hour time limit. Such application shall include documentation demonstrating the circumstances beyond the system's control that prevented the system from collecting the repeat samples not later than 24 hours after notification by the laboratory of the total coliform-positive sample. The system shall file such application with the department not later than 24 hours after being notified by the laboratory of the total coliform-positive sample. The department shall not grant an extension of more than 72 hours, thereby approving the system to collect the repeat samples not later than 96 hours after notification by the laboratory of the total coliform-positive sample, unless the system in the system's application provides evidence that the system's contract laboratory is closed for the weekend or a holiday and the closure will prevent such system from

collecting the repeat samples not later than 96 hours after being notified by the laboratory of the total coliform-positive sample. A system is required to collect the repeat samples required pursuant to this clause and clauses (ii) and (iii) of this subparagraph.

(ii) The system shall collect all repeat samples on the same day. A system with a single service connection may collect the required set of repeat samples over a 3-day period or collect a larger volume repeat sample or samples in 1 or more sample containers of any size, as long as the total volume collected is at least 300 ml.

(iii) The system shall collect an additional set of repeat samples in the manner specified in this clause and clauses (i) and (ii) of this subparagraph if 1 or more repeat samples in the current set of repeat samples is total coliform-positive. The system shall collect the additional set of repeat samples not later than 24 hours after being notified by the laboratory of the total coliform-positive result, unless the department approves an extension beyond the 24-hour time limit in accordance with clause (i) of this subparagraph. The system shall continue to collect additional sets of repeat samples until either total coliforms are not detected in 1 complete set of repeat samples or the system determines that a coliform treatment technique trigger in subdivision (9)(A) of this subsection has been exceeded as a result of a repeat sample being total coliform-positive and the system notifies the department immediately, but not later than the end of the next business day, by telephone. If a coliform treatment technique trigger in subdivision (9)(A) of this subsection is exceeded as a result of a routine sample being total coliform-positive, the system shall conduct only 1 round of repeat monitoring for each total coliform-positive routine sample.

(iv) After a system collects a routine sample and before the system learns the results of the analysis of that sample, if the system collects another routine sample or samples from within 5 adjacent service connections of the initial sample, and the initial sample, after analysis, is found to contain total coliforms, then the system may count the subsequent sample or samples as a repeat sample instead of as a routine sample.

(v) A system shall use the results of all routine and repeat samples taken under this subdivision and subdivisions (4) through (7), inclusive, of this subsection that are not invalidated by the department under subdivision (3)(B)(ii) or (3)(E) of this subsection to determine whether any coliform treatment technique triggers in subdivision (9)(A) of this subsection have been exceeded.

(vi) Repeat samples taken pursuant to this subdivision are not considered special purpose samples, and shall only be used to determine whether any coliform treatment technique triggers specified in subdivision (9)(A) of this subsection have been exceeded.

(B) E. coli testing.

(i) If any routine or repeat sample is total coliform-positive, the system shall analyze that total coliform-positive culture medium to determine if E. coli are present. If E. coli are present, the system shall notify the department immediately, but not later than the end of the day, by telephone, after the system is notified by the laboratory of the test result.

(ii) If a system assumes that the total coliform-positive sample is E. coli-positive, the system may submit an application to the department in accordance with subsection (t) of this section requesting approval to forgo E. coli testing on a total coliform-positive sample. The system shall submit the application to the department by the end of the day on which the system is notified by the laboratory of the positive test result. If the department's office is closed, the system shall submit the application to the department before the end of the next business day. If the department approves the application, the provisions of subsection (e)(7)(I)(i) of this section apply.

(9) Coliform treatment technique triggers and assessment requirements for protection against potential fecal contamination.

(A) Treatment technique triggers. A system shall conduct a level 1 assessment or a level 2 assessment in accordance with subparagraph (B) of this subdivision after exceeding a treatment

technique trigger in clause (i) or (ii) of this subparagraph, as specified.

(i) Level 1 treatment technique triggers. A system has exceeded the level 1 treatment technique trigger if:

(I) For systems taking 40 or more samples per month, more than 5 percent of the samples collected by the system are total coliform-positive in the same month;

(II) For systems taking fewer than 40 samples per month, the system has 2 or more total coliform-positive samples in the same month; or

(III) The system fails to take every required repeat sample after any single total coliform-positive sample.

(ii) Level 2 treatment technique triggers. A system has exceeded a level 2 treatment technique trigger if the system has:

(I) An E. coli MCL violation, as specified in subdivision (10)(A) of this subsection; or

(II) The system has exceeded 2 of the level 1 treatment technique triggers in clause (i) of this subparagraph within a rolling 12-month period. If the system has identified and corrected the problem that caused the first of the 2 level 1 treatment technique trigger exceedances, the system may submit an application to the department in accordance with subsection (t) of this section requesting approval not to count the first of the 2 level 1 treatment technique trigger exceedances. Such application shall include, but not be limited to, the reason or reasons that the samples that caused the first level 1 treatment technique trigger exceedance were total coliform-positive and documentation demonstrating that the system has corrected the problem.

(B) Requirements for level 1 assessments and level 2 assessments.

(i) A system shall ensure that level 1 assessments and level 2 assessments are conducted in a manner that would identify the possible presence of sanitary defects and defects in distribution system coliform monitoring practices.

(ii) When conducting level 1 assessments and level 2 assessments, a system shall ensure that the level 1 assessment or the level 2 assessment evaluates and identifies the elements in subclauses (I) through (VII), inclusive, of this clause. When evaluating and identifying the elements in subclauses (I) through (VII), inclusive, of this clause, the system's size and complexity and whether such assessment is a level 1 assessment or a level 2 assessment, shall be considered. A level 2 assessment shall provide a more detailed examination of the system than a level 1 assessment, including, but not limited to, the system's monitoring and operational practices, through the use of more comprehensive investigation and review of available information, additional internal and external resources, and other relevant practices. The system shall ensure that the level 1 assessment or level 2 assessment evaluates and identifies at least the following elements:

(I) Inadequacies in the sample sites;

(II) Inadequacies in the system's sampling protocol;

(III) Inadequacies in the system's sample processing;

(IV) Atypical events that could affect distributed water quality or indicate that distributed water quality was impaired;

(V) Any changes in distribution system maintenance and operation, including water storage, that could affect distributed water quality;

(VI) Source and treatment considerations that affect distributed water quality, including, but not limited to, whether a ground water system is disinfected, where appropriate; and

(VII) The system's existing water quality monitoring data.

(iii) Level 1 assessments. A system shall complete a level 1 assessment consistent with the requirements in this subparagraph as soon as practical after the system exceeds 1 of the treatment technique triggers in subparagraph (A)(i) of this subdivision. The department may elect to conduct the system's level 1 assessment. If the department elects to conduct the level 1 assessment, the

department shall notify the system of the department's election not later than 10 days after the department learns that the system has exceeded 1 of the level 1 treatment technique triggers in subparagraph (A)(i) of this subdivision.

(I) The system, or the department if the department conducts the level 1 assessment, shall complete a level 1 assessment form prescribed by the department. Unless the department conducted the level 1 assessment, the system shall submit the completed level 1 assessment form to the department for a determination regarding the sufficiency of the level 1 assessment. Such form shall be submitted in accordance with subsection (t) of this section not later than 30 days after the system learns that the system has exceeded 1 of the treatment technique triggers in subparagraph (A)(i) of this subdivision. The level 1 assessment form shall include, but not be limited to, the following information pertaining to the system:

(a) Name and address of the system;

(b) Type of system;

(c) Public Water System Identification (PWSID) number of the system;

(d) Date that the level 1 assessment was completed;

(e) Name, title and address of the level 1 assessor who completed the level 1 assessment and level 1 assessment form;

(f) Results of the level 1 assessor's evaluation of the elements in clauses (ii)(I) through (VII), inclusive, of this subparagraph;

(g) Sanitary defect or defects identified, or if no sanitary defects are identified, then that should be noted on the form;

(h) Cause or causes of the sanitary defect or defects identified;

(i) Any corrective actions completed; and

(j) Any corrective action or actions to be completed by the system and the date by which the system shall complete such corrective action or actions.

(II) If the department determines that the level 1 assessment form submitted under subclause (I) of this clause is not sufficient, including any proposed timetable for any corrective actions not already completed, the department shall consult with the system to determine if revisions to such level 1 assessment form are required. If the department requires revisions after consultation, the system shall submit a revised level 1 assessment form to the department for a sufficiency determination not later than a department-specified date, which date shall not exceed 30 days from the date of the consultation, in accordance with subsection (t) of this section.

(III) The department shall review the level 1 assessment form or the revised level 1 assessment form, if the department required the system to revise the level 1 assessment form under subclause (II) of this clause, to determine if the system has identified a likely cause for the exceedance of the level 1 treatment technique trigger in subparagraph (A)(i) of this subdivision and, if so, provided documentation demonstrating that the system has corrected the sanitary defect or defects, or has included the corrective action or actions the system will take to address the sanitary defect or defects, and the proposed schedule for completing such actions, acceptable to the department for correcting the sanitary defect or defects. If the department determines that the system has identified a likely cause for the exceedance of the level 1 treatment technique trigger in subparagraph (A)(i) of this subdivision and has either provided documentation demonstrating that the system has corrected the sanitary defect or defects or has included the corrective action or actions the system will take to address the sanitary defect or defects, and the proposed schedule for completing such actions, that are acceptable to the department for correcting the sanitary defect or defects, then the department may determine that the level 1 assessment form or revised level 1 assessment form, if the department required the system to revise the level 1 assessment form under subclause (II) of this clause, is sufficient. The level 1 assessment form or the revised level 1 assessment form, if the department

required the system to revise the level 1 assessment form under subclause (II) of this clause, determined sufficient by the department shall constitute the system's department-approved corrective-action plan and schedule.

(iv) Level 2 assessments. A system shall ensure that a level 2 assessment is personally completed by a level 2 assessor as soon as practical after the system exceeds 1 or more of the level 2 treatment technique triggers in subparagraph (A)(ii) of this subdivision. In the case of an E. coli MCL violation, the system shall also comply with any expedited actions or additional actions the department may require, which may include, but are not limited to, the provision of an alternate source of water, notice to consumers to boil water to be used for human consumption, temporary disinfection of water in a manner prescribed by the department, or inactivation of a water source or sources. The department may elect to conduct the system's level 2 assessment. If the department elects to conduct the level 2 assessment, the department shall notify the system of the department's election not later than 10 days after the department learns that the system has exceeded 1 or more of the level 2 treatment technique triggers in subparagraph (A)(ii) of this subdivision.

(I) The level 2 assessor shall personally complete, or the department if the department conducts the level 2 assessment shall complete, a level 2 assessment form prescribed by the department. Unless the department conducted the level 2 assessment, the system shall submit the level 2 assessment form completed by a level 2 assessor to the department for a determination regarding the sufficiency of the level 2 assessment. Such form shall be submitted in accordance with subsection (t) of this section not later than 30 days after the system learns that the system has exceeded 1 of the treatment technique triggers in subparagraph (A)(ii) of this subdivision. The level 2 assessment form shall include, but not be limited to, the following information pertaining to the system:

(a) Name and address of the system;

(b) Type of system;

(c) Public Water System Identification (PWSID) number of the system;

(d) Date that the level 2 assessment was completed;

(e) Name, title and address of the level 2 assessor who completed the level 2 assessment and level 2 assessment form;

(f) Results of the level 2 assessor's evaluation of the elements in clauses (ii)(I) through (VII), inclusive, of this subparagraph;

(g) Sanitary defect or defects identified, or if no sanitary defects are identified, then that should be noted on the form;

(h) Cause or causes of the sanitary defect or defects identified;

(i) Any corrective actions completed; and

(j) Any corrective action or actions to be completed by the system and the date by which the system shall complete such corrective action or actions.

(II) If the department determines that the level 2 assessment form submitted under subclause (I) of this clause is not sufficient, including any proposed timetable for any corrective actions not already completed, the department shall consult with the system to determine if revisions to such level 2 assessment form are required. If the department requires revisions after consultation, the system shall submit a revised level 2 assessment form to the department for a sufficiency determination not later than a department-specified date, which date shall not exceed 30 days from the date of the consultation, in accordance with subsection (t) of this section.

(III) The department shall review the level 2 assessment form or the revised level 2 assessment form, if the department required the system to revise the level 2 assessment form under subclause (II) of this clause, to determine if the system has identified a likely cause for the level 2 treatment technique trigger and, if so, provided documentation demonstrating that the system has corrected the sanitary defect or defects, or has included the corrective action or actions the system will take to

address the sanitary defect or defects, and the proposed schedule for completing such actions, acceptable to the department for correcting the sanitary defect or defects. If the department determines that the system has identified a likely cause for the exceedance of the treatment technique trigger in subparagraph (A)(ii) of this subdivision and has either provided documentation demonstrating that the system has corrected the sanitary defect or defects or has included the corrective action or actions the system will take to address the sanitary defect or defects, and the proposed schedule for completing such actions, that are acceptable to the department for correcting the sanitary defect or defects, then the department may determine that the level 2 assessment form or the revised level 2 assessment form, if the department required the system to revise the level 2 assessment form under subclause (II) of this clause, is sufficient. The level 2 assessment form or the revised level 2 assessment form, if the department required the system to revise the level 2 assessment form under subclause (II) of this clause, determined sufficient by the department shall constitute the department-approved corrective-action plan and schedule.

(C) Corrective action.

(i) A system shall correct sanitary defects found through either a level 1 assessment or a level 2 assessment conducted under subparagraph (B) of this subdivision. If the system has not completed the corrective action or actions before submitting the level 1 assessment or level 2 assessment form to the department, the system shall complete the corrective action or actions in accordance with the department-approved corrective-action plan and schedule under subparagraph (B)(iii)(III) or (B)(iv)(III) of this subdivision, respectively. After completing any corrective action in accordance with the department-approved corrective-action plan and schedule under subparagraph (B)(iii)(III) or (B)(iv)(III) of this subdivision, a system shall submit to the department a notification of the system's completion of such corrective action or actions.

(ii) Corrective actions a system may implement include, but are not limited to, well maintenance, well repair, disinfection of the system, flushing of the system, storage facility maintenance, maintenance of adequate pressure, implementation or upgrade of the system's cross connection control and backflow prevention program, sampler training, addition or upgrade of on-line monitoring and control, addition of security measures, development and implementation of an operations plan, including routine inspection and emergency response plans, collection of additional follow-up samples, and the institution of boil water orders.

(D) Consultation. At any time during the level 1 assessment or level 2 assessment phases, or the corrective action phase, either the system or the department may request a consultation with the other party to determine the appropriate actions to be taken. The system may consult with the department on all relevant information that may impact on the system's ability to comply with a requirement of this subsection, including, but not limited to, the method of accomplishment and an appropriate timeframe. The department shall note any determination made as a result of the consultation.

(10) Violations.

(A) E. coli MCL violation. A system is in violation of the MCL for E. coli under this subsection when any of the conditions identified in clauses (i) through (iv), inclusive, of this subparagraph occur.

(i) The system has an E. coli-positive repeat sample following a total coliform-positive routine sample.

(ii) The system has a total coliform-positive repeat sample following an E. coli-positive routine sample.

(iii) The system fails to take all required repeat samples following an E. coli-positive routine sample.

(iv) The system fails to test for E. coli when any repeat sample tests positive for total coliform.

(B) Treatment technique violation.

(i) A treatment technique violation occurs when a system exceeds a treatment technique trigger in

subdivision (9)(A) of this subsection and then fails to conduct the required level 1 assessment or level 2 assessment, or corrective actions, within the timeframe specified in subdivisions (9)(B) and (C), respectively, of this subsection.

(ii) A treatment technique violation occurs when a seasonal system fails to complete a start-up procedure that complies with the criteria in either subdivision (4)(F)(i)(I), (6)(A)(iv)(I), or (7)(A)(iv)(I) of this subsection prior to serving water to the public.

(C) Monitoring violations.

(i) A system's failure to take every required routine or additional routine sample in a compliance period as required by this subsection is a monitoring violation.

(ii) A system's failure to analyze for E. coli following a total coliform-positive routine sample as required in this subsection is a monitoring violation.

(D) Reporting violations.

(i) A system's failure to submit to the department a monitoring report in a timely manner after a system properly conducts monitoring under this subsection is a reporting violation.

(ii) A system's failure to submit to the department a completed level 1 assessment or level 2 assessment form required under subdivision (9)(B) of this subsection not later than 30 days after the system learns that the system has exceeded 1 of the treatment technique triggers in subdivision (9)(A) of this subsection is a reporting violation.

(iii) A system's failure to notify the department immediately, but not later than the end of the day, by telephone, after the system learns of an E. coli-positive sample as required by subdivision (8)(B)(i) of this subsection is a reporting violation.

(iv) A seasonal system's failure to submit a certification that the seasonal system completed a start-up procedure that complies with the criteria in either subdivision (4)(F)(i)(I), (6)(A)(iv)(I), or (7)(A)(iv)(I) of this subsection is a reporting violation.

(11) Reporting and recordkeeping.

(A) Reporting.

(i) E. coli.

(I) A system shall notify the department immediately, but not later than the end of the day, by telephone, and shall notify the local director of health of each city, town, borough, or district served by the system not later than the end of the next business day, in writing, after the system learns of an E. coli MCL violation and shall notify the public pursuant to the procedures for public notification in subsection (i) of this section.

(II) A system shall notify the department immediately, but not later than the end of the day, by telephone, after the system learns of an E. coli-positive routine sample.

(ii) A system that has violated the treatment technique for total coliforms in subdivision (9)(A) of this subsection shall report the violation to the department immediately, but not later than the end of the next business day, by telephone, after the system learns of the violation, and shall notify the public pursuant to the procedures for public notification in subsection (i) of this section.

(iii) A system required to conduct a level 1 assessment or a level 2 assessment under the provisions of subdivision (9)(B) of this subsection shall submit the level 1 assessment or level 2 assessment form to the department not later than 30 days after the system learns that it has exceeded 1 of the treatment technique triggers in subdivision (9)(A) of this subsection. The system shall notify the department in accordance with subdivision (9)(C) of this subsection when each scheduled corrective action is completed for corrections not completed by the time of submission of the level 1 assessment or level 2 assessment form.

(iv) A system that has failed to comply with a total coliform monitoring requirement shall report the monitoring violation in writing to the department not later than 9 days after the system discovers the violation, and shall notify the public pursuant to the procedures for public notification in

subsection (i) of this section.

(B) Recordkeeping.

(i) A system shall maintain the system's level 1 assessment and level 2 assessment forms, regardless of who conducts the assessment, and documentation of corrective actions completed as a result of such level 1 assessments and level 2 assessments, as well as any other documentation of the sanitary defects and corrective actions taken under subdivision (9) of this subsection for department review. These records shall be maintained by the system for a period not less than 5 years after completion of the assessment or corrective action.

(ii) A system shall maintain a record of any repeat sample for which the department has approved an extension of the 24-hour period for collecting repeat samples pursuant to subdivision (8)(A)(i) of this subsection.

Sec. 32. Section 19-13-B102 of the Regulations of Connecticut State Agencies is amended by adding subsection (y) as follows:

(NEW)

(y) Whenever an incident, condition or emergency at a system that resulted, or has the potential to result, in a harmful or adverse outcome comes to the attention of the department, either through a notification under this section or by other regulatory requirements, the department may order the system to undertake an investigation and submit a report to the department that contains a root cause analysis that details how the incident, condition or emergency came to occur and provides recommendations for corrective action. For purposes of this subsection, a "root cause analysis" means a summary of the incident, condition or emergency and a proposed structured approach to identify the factors that resulted, or had the potential to result, in the harmful or adverse outcome. It shall examine the nature, magnitude, location and timing of the harmful or adverse outcome and identify behaviors and conditions to be changed to prevent recurrence.

Sec. 33. Section 19-13-B102 of the Regulations of Connecticut State Agencies is amended by adding subsection (z) as follows:

(NEW)

(z) A CWS shall notify the department immediately, but not later than the end of the next business day, by telephone if such CWS receives more than 3 complaints regarding a similar water quality or quantity concern within a 1 week period or if the complaint received by the CWS is regarding a water quality or quantity concern that may have the potential to impair public health.

Statement of Purpose

The Department of Public Health (DPH) is amending § 19-13-B102 of the Regulations of Connecticut State Agencies to incorporate the new requirements in the federal Revised Total Coliform Rule, 78 FR 10269 (February 13, 2013) (RTCR) into the DPH's regulations. In order to maintain primacy, the DPH is required to adopt regulations that are at least as stringent as the RTCR. In addition, the DPH is amending § 19-13-B102 of the Regulations of Connecticut State Agencies to make physical parameter levels DPH-recommended goals, rather than required limits, and therefore not enforceable. The DPH is also amending § 19-13-B102 of the Regulations of Connecticut State Agencies to change the notification level of sodium from 28 to 100 milligrams per liter due to recent recommendations by the DPH State Toxicologist. Additionally, the DPH is amending § 19-13-B102 of the Regulations of Connecticut State Agencies to remove the requirement that non-community water systems install meters on their sources and take, record, and retain for reference representative weekly readings of instantaneous flow rate and total quantity of water delivered over the previous week. The DPH is also amending § 19-13-B102 of the Regulations of Connecticut State Agencies to authorize the DPH to require a public water system to perform a root cause analysis whenever an incident, condition or emergency at a public water system that resulted, or has the potential to result, in a harmful or adverse outcome comes to the attention of the DPH. Also, DPH is amending § 19-13-B102 to require a community water system to notify the DPH immediately, but not later than the end of the next business day, by telephone if such community water system receives more than three complaints regarding a similar water quality or quantity concern within a one week period or if the complaint received by the community water system is regarding a water quality or quantity concern that may have the potential to impair public health. Finally, the DPH is amending § 19-13-B102 of the Regulations of Connecticut State Agencies to include changes required by the U.S. Environmental Protection Agency as a result of its review of the DPH's primacy applications for the federal Arsenic Rule, Ground Water Rule and the Radionuclides Rule.