DRAFT RULE AMENDMENTS FOR PUBLIC REVIEW

CHAPTER 391-3-5
SAFE DRINKING WATER

List of Rules from this Chapter that are included in this document:

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Rule 391-3-5-.02 Definitions.

NOTE: draft amendments to paragraphs (16) and (91) are excerpted below

All terms used in these rules shall be interpreted in accordance with the definitions as set forth in the Georgia Safe Drinking Water Act of 1977 or as herein defined:

…

(16) "Clean compliance history" is, for the purposes of the Revised Total Coliform Rule, 391-3-5-.55, a record of: no MCL violations under Rule 391-3-5-.18(4)(a)-(c) or Rule 391-3-5-.55; no monitoring violations under Rule 391-3-5-.23 or Rule 391-3-5-.55; and no coliform treatment technique trigger exceedances or treatment technique violations under Rule 391-3-5-.55.

…

(91) "Optimal corrosion control treatment" as it applies to Rule 391-3-5.25 (Lead & Copper) of this RuleChapter, means the corrosion control treatment that minimizes the lead and copper concentrations at user's taps while insuring that the treatment does not cause the water to violate any national primary drinking water regulation.

Rule 391-3-5-.04 Approval Required

NOTE: draft amendments to portions of paragraphs (1), (2) and (9) are excerpted below

(1) Approval. No person shall erect, construct, or operate a public water system, nor undertake substantial enlargements, extensions, additions, modifications, renovations or repairs to any public water system, including storage, distribution, purification, or treatment components, without having first secured the Division's approval of: the source of water supply; the means and methods of treating, purifying, storing and distributing said water; and obtaining a permit to operate a public water system, except as provided by paragraph (2) of this SectionRule. The approval of the Director must be obtained prior to the dividing of a public water system. For purposes of these rules "substantial" as used in this SectionRule shall not include routine maintenance.

(2) **Limited Additions.** Governmentally owned public water systems and water authorities and privately owned community water systems whose owners serves a combined population of greater than 10,000, with qualified staff and meeting operating criteria developed by the Division may, with prior approval from the Division, approve limited additions to the water system. These additions will be limited to water distribution lines to serve subdivisions, apartment complexes and shopping centers. The review of other additional types of water distribution system additions and/or extensions may be delegated to those local governmentswater systems that have demonstrated the capability for such reviews. All delegations shall be by written agreement. Additions approved by the water system must be reported annually in a format prescribed by the Division. The report shall be due by July 1 of each year and describe additions approved in the previous calendar year.

…

(9) **Performance Bond or Letter of Credit**

…

(b) Any owner or operator of a public water system serving year-round residents who is required to obtain a performance bond or letter of credit pursuant to ~~Rule 391-3-5-.05~~subparagraph (9)(a) shall file with the director the following:
…
(c) The bond or letter of credit required in ~~Rule 391-3-5-.05~~subparagraph (9)(~~a~~b) shall be:
…
(d) If an existing bond or letter of credit is to expire or terminate, the owner or operator of the public water system shall file a replacement bond or letter of credit meeting the requirements of this ~~subsection~~paragraph at least 60 days prior to the termination or expiration of the existing bond or letter of credit.
…
(f) No action taken by the director pursuant to this ~~subsection~~paragraph, including the forfeiture of a bond or the drawing of funds from a letter of credit, shall relieve the owner or operator of a public water system from compliance with all provisions of this part, including the requirement to maintain in full force and effect a bond or letter of credit meeting the requirements of this ~~subsection~~paragraph.
(g) Every permit issued under the Rules for Safe Drinking Water, Chapter 391-3-5, shall be conditioned upon compliance with ~~Rule 391-3-5-.05(9)~~this paragraph.
(h) The provisions of ~~Rule 391-3-5-.05(9)~~this paragraph shall not apply to:
…

Rule 391-3-5-.05 Preparation and Submission of Engineering Reports, Plans and Specifications for Public Water Systems

NOTE: draft amendments to portions of paragraphs (1), (4) and (8) are excerpted below

(1) **General Provisions**. For any activity listed in paragraph (1) of ~~Section~~Rule 391-3-5-.04 an engineering report prepared by a professional engineer shall be submitted to the Division prior to the preparation of the final construction plans and specifications. Plans and Specifications shall be prepared by a professional engineer and submitted to the Division, accompanied by a letter of submittal identifying the project, owner and owner's address. No construction shall be initiated without prior approval from the Division. The engineering report and/or plans and specifications may be waived by the Director when information submitted by the supplier of water allows an engineering appraisal of the proposed activity to be made by the Division as follows:
…
(4) **Plans and Specifications**. Plans and specifications must be submitted with additional copies as may be requested, and shall include, but not be limited to the following:
…
(d) the dimensions of the plan sheets must be within the following limits: twenty (20) to thirty (30) inches in height and twenty-four (24) to forty-two (42) inches in length~~, and shall be of sufficient clarity to be microfilmed~~;
…
(8) **Construction Without Division Approval**. At the discretion of the Director, an existing public water system that is constructed without obtaining prior approval from the Division may

be considered acceptable by the Director, provided all of the following are accomplished to the satisfaction of the Division:
(a) An engineering evaluation of the constructed facilities is made by a professional engineer, licensed in the state of Georgia, to evaluate and certify conformance of the constructed facilities with all of the applicable ~~sections~~paragraphs of the rules in this Chapter. The engineer's certification, along with the "as-built" plans and specifications must be submitted to the Division for review and comment.
(b) All items, data, documentation and information required for source approvals and permit issuances for a public water system, as stated in the rules of this Chapter, must be submitted to the Division. Any additional and/or corrective action that is required by the Division for the owner or operator of the system to complete, prior to issuance of the permit, must be accomplished within ninety (90) days from the date of notification by the Division.

Rule 391-3-5-.07 Wells

NOTE: draft amendments to portions of paragraphs (3), (5), (9), (11) and (13) are excerpted below

…
(3) **Protection from Contamination**. Each well must be protected from contamination by surface waters and other sources of contamination. The location of wells must be in compliance with ~~the following criteria:~~the latest edition of EPD's "Minimum Standards for Public Water Systems."
~~(a) generally at the highest point, and as far removed, and in a direction opposite to the ground water flow from any known or probable source of contamination as the general layout of the premises and surroundings will permit;~~
~~(b) not less than fifty (50) feet from a septic tank;~~
~~(c) not less than one hundred (100) feet away from a septic tank absorption field;~~
~~(d) not less than ten (10) feet away from a sewer;~~
~~(e) not less than one thousand (1,000) feet away from a solid waste disposal site and not in a direction where ground water flow from the site may be intercepted by the well;~~
~~(f) as far removed as possible from all open abandoned wells;~~
~~(g) in areas of sink holes, a survey may be required by the Division to determine the most suitable well location if there is insufficient information available to make such determination.~~
~~(h) no well shall be located in the flood plain unless adequate protection is provided to prevent submergence of the well casing, pumps and appurtenances;~~
~~(i) variation of the distance from areas of known or probable sources of contamination may be permitted or required by the Division due to topography, local soil or geologic conditions.~~
…
(5) **Well Construction Standards**. All wells must be constructed as hereinafter provided, however, deviations from these rules may be permitted or required by the Division due to the variable conditions of the subsurface and ground water quality in a specific area.
(a) Drilling fluids must be from an uncontaminated source or must be disinfected.
(b) All permanent casing, liners, screens and other manufactured material used in the well installation must be new and adequate to protect the well against entrance of contaminants during

the expected life of the well. All casing and liner pipe joints shall be water tight the entire length in drilled wells.

1. Steel pipe well casing shall conform to American Society for Testing and Materials (ASTM) Specification ~~A 120 or~~ A 53, American Petroleum Institute (API) Specification 5L, ~~or 5LS~~ or equal standard, and meet the following minimum wall thickness unless otherwise approved by the Division.

Nominal Casing Diameter (inches)	Minimum Wall Thickness (inches)
4	~~0.1880~~.237
5	~~0.1880~~.258
6	~~0.1880~~.280
8	~~0.2190~~.322
10	~~0.2500~~.365
12	~~0.2500~~.375
14	~~0.3120~~.375
16	~~0.3120~~.375
18	0.375
20	0.375
24	~~0.3750~~.500
26	0.500

2. The use of plastic well casing and screens must be approved by the Division prior to well installation. The well casing and couplings shall meet the requirements of the ASTM Standard F 480 or equal standard and the National Sanitation Foundation for use with potable water. When approved for use by the Division, plastic well casing shall conform to the following minimum wall thickness ~~unless otherwise approved by the Division~~. However, plastic well casing diameters of 12 inches or greater or deep wells may require greater wall thickness to meet the collapse strength requirements.

Nominal Casing Diameter (inches)	Minimum Wall Thickness (inches)
4	0.265
4.5	0.291
6	0.390
8	0.508
10	0.632
12	0.750

Plastic well casing and screen shall not extend to a depth of greater than 300 feet below the ground surface.

…

(9) **Disinfection of the Well**.

(a) The well must be disinfected prior to the pumping test by the introduction of a chlorine solution into the well under sufficient pressure to overcome the natural flow pressures of all developed water-bearing zones, and in sufficient quantity to produce a minimum chlorine residual of fifty (50) parts per million in six (6) hours after such application.

(b) After disinfection, the well must be pumped until no trace of chlorine remains in the water, and water samples taken for microbiological analysis. No water may be furnished for human

consumption until samples of water are collected by the supplier, and submitted to the Division for microbiological examination, and the quality of the water approved by the Division. If the water samples submitted are found to be unsatisfactory, the disinfection procedure must be repeated as required by the Division.
(c) The permanent pump and pumping equipment shall be disinfected with a chlorine solution prior to being placed into service.
(d) Well disinfection shall be conducted in accordance with American Water Works Association (AWWA) Standard C654.
…
(11) **Installation Standards**. A well used as a source of water supply must include the following:
(a) A concrete slab with a minimum thickness of six (6) inches shall be constructed around the well casing and shall extend at least two (2) feet in all directions, and slope away, from the casing.
(b) The well casing shall extend at least twelve (12) inches above the concrete slab of the floor.
(c) For submersible pump installations, the well casing shall be provided with a sealed cover plate and, when required by the Division, vented by a screened riser pipe so that the screened opening terminated downward at least twelve (12) inches above the top of the casing or ground level.
(d) For turbine pump installations, a concrete block to support the pump motor shall be constructed around the outer well casing and shall extend at least twelve (12) inches above the concrete slab, and:
1. the outer casing shall extend at least one (1) inch above the pump motor block;
2. the well head and pump base shall be sealed to prevent seepage and the casing shall be vented by a screened riser pipe so that the screen opening terminates downward and above any point of back flow of contaminants into the well; and
3. oil lubricated vertical turbine pumps shall be lubricated with an acceptable turbine oil as prescribed by the pump manufacturer.
(e) A raw water sampling tap shall be ~~provided~~installed prior to ~~on~~ the end of the well discharge pipe.
(f) An access port of not less than five-eights (5/8) inch in diameter, with screw cap, for water level measurements; a deep well air line and gage may also be used in conjunction with the access port.
…
(13) **Rehabilitating Existing Wells**. When an existing well is rehabilitated or reworked, the well shall be disinfected according to procedures described in this ~~Section~~Rule.
…

Rule 391-3-5-.10 Distribution System

NOTE: draft amendments to paragraph (10) are excerpted below

…
(10) **Lead Free**. ~~Any pipe, solder or flux which is used in the installation or repair of any public water distribution system shall be lead free with not more than 8.0% lead in pipes and fittings;~~

~~and not more than 0.2% lead in solders and flux. This does not apply to leaded joints necessary for the repair of cast iron pipes.~~
(a) For purposes of this rule, the term "lead free" means:
1. not containing more than 0.2 percent lead when used with respect to solder and flux; and
2. not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.
(b) The weighted average lead content of a pipe, pipe fitting, plumbing fitting, or fixture shall be calculated by using the following formula: For each wetted component, the percentage of lead in the component shall be multiplied by the ratio of the wetted surface area of that component to the total wetted surface area of the entire product to arrive at the weighted percentage of lead of the component. The weighted percentage of lead of each wetted component shall be added together, and the sum of these weighted percentages shall constitute the weighted average lead content of the product. The lead content of the material used to produce wetted components shall be used to determine compliance with paragraph (a). For lead content of materials that are provided as a range, the maximum content of the range shall be used.
(c) When used with respect to plumbing fittings and fixtures intended by the manufacturer to dispense water for human ingestion refers to fittings and fixtures that are in compliance with standards established in accordance with 42 U.S.C. 300g-6(e).
(d) This term does not apply to leaded joints necessary for the repair of cast iron pipes.

Rule 391-3-5-.15 Record Maintenance

NOTE: draft amendments to portions of paragraph (1) are excerpted below

(1) **Requirements for Records and Retention**. Any supplier of water shall retain on its premises or at a convenient location near its premises, the following records:
…
(b) Records of public notices, certifications of public notices and any actions taken by the system to correct violations of these rules shall be kept for a period not less than three (3) years after either the public notice was issued, certification was submitted or the last corrective action was taken with respect to the particular violation involved.
…
(e) Any system subject to the lead and copper requirements shall retain on its premises original records of all sampling data, analyses, reports, surveys, letters, evaluations, schedules, Division determinations, and any other information required by ~~Section~~Rules 391-3-5-.25 or .30. Each water system shall retain the records required by this rule for no fewer than twelve (12) years.
…
(h) Copies of monitoring plans developed pursuant to this part shall be kept for the same period of time as the records of analyses taken under the plan are required to be kept under paragraph (1)(a) ~~of this section~~, except as specified elsewhere in this part.

Rule 391-3-5-.17 Permit to Operate a Public Water System

NOTE: draft amendments to portions of paragraphs (2), (5), (6), (11), (12) and (16) are excerpted below

…

(2) **Permit Application**. Applicants for permits under ~~Section 7 of~~ the Act shall be on forms as may be prescribed and furnished by the Division. The permit application form shall be signed by the owner or their duly authorized agent. ~~For privately owned community public water systems, the trustee of the water system must be clearly identified on the permit application.~~

…

(5) **Public Participation**. Whenever in the judgment of the Director public participation may be required prior to the final determination to issue or deny a permit the Director may give public notice of the proposed action. Public notice will be prepared and circulated in a manner designed to inform interested and potentially interested persons of the permit application. Procedures for circulation of the public notice shall include the following:

~~(a) Within the geographical area of the proposed or existing public water system, the public notice shall be circulated by at least one of the following:~~

~~1. posting it in the post office or other public building near the premises of the proposed or existing public water system; or~~

~~2. publication in one (1) or more newspapers of general circulation in the area of the proposed or existing public water system.~~

~~(b) Posting of the public notice in the office of the Secretary of State.~~

(a~~c~~) A copy of the public notice ~~shall be mailed~~will be provided to the permit applicant ~~and a copy shall~~, will be available at the Division office in Atlanta, and will be posted to the Division's website.

(b) Electronic mailing (e-mail) notification of the public notice to any persons or groups included on the electronic mailing list to receive such notices. The EPD shall maintain an electronic mailing list for distribution of public notices. Any person or group may request that their e-mail address be added to the electronic mailing list or they may sign-up through the EPD website.

~~(d) Mailing of the public notice to any person or group upon request. The Division shall maintain a mailing list for distribution of public notices. Any person or group may request that their names be placed on the mailing list. The request shall be in writing to the Division office in Atlanta and shall be renewed in December of each year. Failure to renew the request shall result in the removal of such name from the mailing list.~~

(c~~e~~) The Director shall provide a period of not less than thirty (30) days following the public notice in which interested persons may submit their written views with respect to the permit application. All written comments submitted during the thirty (30) day comment period will be retained by the Division and considered in the final determination of the permit application.

(d~~f~~) The contents of the public notice will be in accordance with applicable Federal regulations and State laws.

(6) **Public Hearing**. The Director shall hold a public hearing if he determines that there is sufficient public interest or need for a public hearing prior to the final determination to issue or deny a permit.

(a) Any public hearing held pursuant to this ~~subsection~~paragraph shall be held in the geographical area of the proposed or existing public water system or other appropriate location at the discretion of the Director.
(b) The Director may hold one public hearing on related groups of permit applications.
(c) Public notice of any public hearing held pursuant to this ~~subsection~~paragraph shall be provided at least thirty (30) days in advance of the hearing date and shall be circulated in accordance with paragraph (5) of this ~~Section~~rule.
…
(11) **Permit Expiration Term**. Each permit issued under this ~~Section~~Rule shall have a fixed term not to exceed ten (10) years. The permittee shall apply for a renewal at least 90 days prior to the expiration of the permit. ~~Upon expiration of such permit, a~~A new permit may be issued by the Director if, after a review, the Director determines that the continued operation of such public water system meets or will meet all applicable drinking water standards, maximum contaminant levels and all requirements of the Act and these rules. Any permit issued under this paragraph may include any of the terms, conditions and schedules of compliance under paragraph (7) of this ~~Section~~Rule.
(12) **Revocation, Suspension, or Modification**. The Director may revoke, suspend, or modify a permit issued under this ~~Section~~Rule for cause, including, but not limited to, the following:
(a) violation of any condition of said permit;
(b) obtaining a permit by misrepresentation, or failure to disclose fully all relevant facts;
(c) change in any condition that requires either:
1. a temporary or permanent decrease in the maximum contaminant levels; or
2. elimination of the permitted operation.
…
(16) **Compliance with Wellhead Protection**. All community public water systems utilizing ground water sources and serving a municipality, county, or an authority are required to comply with the Wellhead Protection ~~section of this~~ rule, ~~(Section~~Rule 391-3-5-.40~~)~~.
…

391-3-5-.18 Primary Maximum Contaminant Levels for Drinking Water~~.~~

NOTE: draft amendments to portions of paragraph (1) are excerpted below

(1) **Primary MCLs for Inorganics.** INORGANICS - The maximum contaminant levels (MCLs) for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, mercury, nickel, selenium and thallium of this Rule apply to community water systems and non-transient, non-community water systems. The MCLs for fluoride in this Rule apply to community water systems. The MCLs for nitrate, nitrite, and total nitrate-nitrite of this Rule apply to all (CWS, NTNCWS, TNCWS) public water systems.
…
(b) At the discretion of the Director, nitrate levels not to exceed 20 mg/L may be allowed in a non-community water system if the supplier of water demonstrates to the satisfaction of the Director that:
1. such water will not be available to children under 6 months of age;

2. ~~there will be~~the water system is meeting the public notification requirements under Rule 391-3-5-.32, including continuous posting of the fact that nitrate levels exceed 10 mg/L and the potential health effects of exposure;
3. local and State public health authorities will be notified annually of nitrate levels that exceed 10 mg/L; and
4. no adverse health effects shall result.
…

Rule 391-3-5-.20 Turbidity Sampling and Analytical Requirements

NOTE: draft amendments to portions of paragraphs (1)-(3) and (8) are excerpted below

(1) **Turbidity Testing Frequency**. On and after June 29, 1993, representative samples of filtered water shall be taken and analyzed by said suppliers at least every four hours when the plant is in operation, for the purpose of making turbidity measurements to determine compliance with the treatment technique requirement of ~~paragraph (3) of Section~~Rule 391-3-5-.18(3). If the Division determines that a reduced sampling frequency in a non-community system will not pose a risk to public health, it can reduce the required sampling frequency in accordance with 40 CFR 141.74 for systems using slow sand filtration or filtration treatment other than conventional treatment, direct filtration, or diatomaceous earth filtration. The option of reducing the turbidity frequency shall be permitted only in those public water systems that practice disinfection and which maintain an active residual disinfectant in the distribution system and in those cases where the Division has indicated in writing that no unreasonable risk to health existed under the circumstances of this option. The turbidity measurements shall be made in accordance with the recommendations set forth in 40 CFR Part 141.22.
(2) **Exceedance Determination**. ~~If the result of a turbidity analysis on and after June 29, 1993 indicates that the treatment technique requirement has been exceeded, the sampling and measurement shall be confirmed by resampling as soon as practicable and preferably within one hour. If the repeat sample confirms that the treatment technique requirement has been exceeded~~If a turbidity treatment violation has occurred based on a single exceedance of the maximum allowable turbidity limit, the supplier of water shall consult with the ~~primacy agency~~Division as soon as practical but no later than ~~within~~ 24 hours after learning ~~about~~of the violation (40 CFR 141.203(b)). If the consultation does not occur within those 24 hours, the violation is elevated to ~~a~~ Tier 1 under 40 CFR Subpart Q. ~~The repeat sample shall be the sample of water used for the purpose of calculating compliance with the monthly treatment technique requirement.~~ If the monthly treatment technique requirement is exceeded, or if ~~the maximum~~ any measured turbidity level exceeds the maximum allowable level, the supplier of water shall report to the Division and notify the public as directed in ~~Sections~~Rules 391-3-5-.30 and .32.
(3) **Applicability to Surface Water Sources**. The requirements of this ~~Section~~Rule shall apply only to public water systems, which use water obtained in whole or in part from surface water sources or ground water sources under the direct influence of surface water.
…
(8) **Filtration Requirements for Fewer than 10,000 Population Water Systems**. Beginning January 14, 2005, public water systems that use surface water or ground water under the direct influence of surface water as a source and serve fewer than 10,000 people must meet the filtration and disinfection requirements in 40 CFR Part 141, Subpart T. This requirement is in addition to complying with requirements in Subpart H of 40 CFR Part 141.
…

(f) Disinfection benchmark: 40 CFR, Subpart T §§ 141.540 through 141.544 is hereby incorporated by reference. If you are a subpart H system required to develop a disinfection profile under ~~Section~~Rule 391-3-5-.20(10)(e), your system must develop a disinfection benchmark if you decide to make a significant change to your disinfection practice. Before implementing a significant disinfection practice change, a prior approval from the Division must be obtained. Significant changes to disinfection practice include:
…
(h) Individual filter turbidity requirements for systems utilizing conventional filtration or direct filtration: 40 CFR, Subpart T §§ 141.560 through 141.564 is hereby incorporated by reference. A subpart H public water system subject to the requirements of this ~~section~~Rule must conduct continuous monitoring of turbidity for each individual filter using an approved method in 40 CFR § 141.74(a) and must calibrate turbidimeters using the procedure specified by the manufacturer. Systems must record the results of individual filter monitoring every fifteen (15) minutes. If there is a failure in the continuous turbidity monitoring equipment, the system must conduct grab sampling every four (4) hours in lieu of continuous monitoring until the turbidimeter is back on-line. The system has fourteen (14) days to resume continuous monitoring before a violation is incurred.
…

Rule 391-3-5-.21 Inorganic Chemical Sampling and Analytical Requirements

NOTE: draft amendments to portions of paragraphs (1)-(3), (5)-(6), and (9)-(16) are excerpted below

(1) **CWS and NTNCWS Monitoring**. Community and non-transient, non-community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels specified in ~~Section~~Rule 391-3-5-.18 in accordance with this ~~section~~rule.
(2) **TNCWS Monitoring**. Transient, non-community water systems shall conduct monitoring to determine compliance with the nitrate and nitrite maximum contaminant levels in ~~Section~~Rule 391-3-5- .18 in accordance with this ~~section~~rule.
(3) ~~**Arsenic Monitoring**.~~**Nitrate Monitoring for NCWS with Alternate Limit.** ~~All new systems or systems that use a new source of water that begin operation after January 22, 2004 must demonstrate compliance with the MCL within a period of time specified by the Division. The system must also comply with the initial sampling frequencies specified by the Division 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.~~ The frequency of monitoring conducted to determine compliance with the maximum contaminant level for ~~arsenic~~ Nitrate as specified in ~~Section~~Rule 391-3-5-.18(1)(b) shall be conducted as follows:
(a) Analyses for all non community ~~and non-transient, non-community~~ water systems (NTNCWS and TNCWS) utilizing surface water sources shall be repeated at yearly intervals. Analyses for all non community water systems (NTNCWS and TNCWS) utilizing only ground water sources shall be repeated at three-year intervals.
(b) ~~Analyses for all community and non-transient, non-community water systems utilizing only ground water sources shall be repeated at three-year intervals.~~ For any non community water system (NTNCWS and TNCWS) that the Director has granted an alternate nitrate MCL of 20 mg/l pursuant to Rule 391-3-5-.18(1)(b) the monitoring frequency shall be conducted at intervals determined by the Director.
(c) If the result of an analysis made pursuant to paragraph (3) ~~of this Section~~ indicates that the level of ~~arsenic~~Nitrate listed in ~~paragraph (1) of Section~~Rule 391-3-5-.18(1)(b) exceeds the

maximum contaminant level, the supplier of water shall report to the Division in writing within seven (7) days and initiate three additional analyses at the same sampling point within fourteen (14) days.
(d) When the average of four analyses made pursuant to paragraph (3)(c) ~~of this Section~~, rounded to the same number of significant figures as the maximum contaminant level for the substance in question, exceeds the maximum contaminant level, the supplier of water shall notify the Division pursuant to ~~Section~~Rule 391-3-5-.30 and give notice to the public pursuant to ~~Section~~Rule 391-3-5-.32. Monitoring after public notification shall be at a frequency designated by the Division and shall continue until the maximum contaminant level has not been exceeded in two successive samples or until a monitoring schedule as a condition to a permit, variance, exception or enforcement action shall become effective.
(e) If the four analyses are not made pursuant to paragraph (3)(c) ~~of this section~~, the Division will use the analyses available to prepare compliance calculations pursuant to paragraph (3)(d) ~~of this section~~.
(f) ~~The system may apply to the Division for an arsenic waiver from the monitoring frequencies in paragraphs (3)(a) and (3)(b) of this section pursuant to paragraph (6)(b).~~The Division has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by their sanctioned representatives or agencies.
(g) The provisions of paragraphs (3)(c) and (3)(d) not withstanding, compliance with maximum contaminant for nitrate shall be determined based on the mean of the two analyses. When a level exceeding the maximum contaminant level for nitrate is found, a second analysis shall be initiated within 24 hours and if the mean of the two analyses exceeds the maximum contamination level, the supplier of water shall report the findings to the Director pursuant to Rule 391-3-5-.30 and shall notify the public pursuant to Rule 391-3-5-.32.
…
(5) **Asbestos Monitoring**. The frequency of monitoring conducted to determine compliance with the maximum contaminant level for asbestos specified in ~~Section~~Rule 391-3-5-.18 shall be conducted as follows:
…
(d) A waiver remains in effect until the completion of the three-year compliance period. Systems not receiving a waiver must monitor in accordance with the provisions of paragraph (5)(a) ~~of this section~~.
…
(f) A system vulnerable to asbestos contamination due solely to source water shall monitor in accordance with the provision of paragraph (4) ~~of this section~~.
…
(h) A system which exceeds the maximum contaminant levels as determined in ~~Section~~Rule 391-3-5-.21(12) shall monitor quarterly beginning in the next quarter after the violation occurred.
(i) The Division may decrease the quarterly monitoring requirement to the frequency specified in paragraph (5)(a) ~~of this section~~ provided the Division has determined that the system is reliably and consistently below the maximum contaminant level. In no case can the Division make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface (or combined surface/ground) water system takes a minimum of four quarterly samples.
(j) If monitoring data collected after January 1, 1990 are generally consistent with the requirements of ~~Section~~Rule 391-3-5-.21(5) then the Division may allow systems to use that data to satisfy the monitoring requirement for the initial compliance period beginning January 1, 1993.
(6) **Other Inorganics Monitoring**. The frequency of monitoring conducted to determine compliance with the maximum contaminant levels in ~~Section~~Rule 391-3-5-.18 for antimony, arsenic, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium and thallium shall be as follows:
…

(b) The system may apply to the Division for a waiver from the monitoring frequencies specified in paragraph ~~(3)(a), (3)(b) and~~ (6)(a) ~~of this section~~.
…
(g) Systems which exceed the maximum contaminant levels as calculated in paragraphs (3)(d) and (12) ~~of this section~~ shall monitor quarterly beginning in the next quarter after the violation occurred.
(h) The Division may decrease the quarterly monitoring requirement to the frequencies specified in paragraphs (3)(a), (3)(b), (6)(a) and (6)(b) ~~of this section~~ provided it has determined that the system is reliably and consistently below the maximum contaminant level. In no case can the Division make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface water system takes a minimum of four quarterly samples.
(i) All new systems or systems that use a new source of water that begin operation after January 22, 2004 must demonstrate compliance with the MCL within a period of time specified by the Division. The system must also comply with the initial sampling frequencies specified by the Division 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 paragraph.
…
(9) **Confirmation samples**.
(a) Where the results of sampling for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium indicate an exceedance of the maximum contaminant level, the Division may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point.
…
(c) If a Division-required confirmation sample is taken for any contaminant, then the results of the initial and confirmation sample shall be averaged. The resulting average shall be used to determine the system's compliance in accordance with paragraph (12) ~~of the section~~.
(10) **Increased Frequency of Monitoring**. The Division may require more frequent monitoring than specified in paragraphs (5), (6), (7), and (8) ~~of this section~~ or may require confirmation samples for positive and negative results at its discretion.
(11) **Request for Increased Monitoring Frequency**. Systems may apply to the Division to conduct more frequent monitoring than the minimum monitoring frequencies specified in this ~~section~~rule.
(12) **Compliance Based on Analytical Results**. Compliance with Rule 391-3-5-.18 (as appropriate) shall be determined based on the analytical result(s) obtained at each sampling point.
(a) For systems which are conducting monitoring at a frequency greater than annual, compliance with the maximum contaminant levels for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium and thallium is determined by a running annual average at each sampling point. If the average at any sampling point is greater than the MCL, then the system is out of compliance. If any single sample would cause the annual average to be exceeded, then the system is out of compliance immediately. Any sample below the detection limit shall be calculated at zero for the purpose of determining the annual average.
(b) For systems which are monitoring annually, or less frequently, the system is out of compliance with the maximum contaminant levels for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium and thallium if the level of a contaminant at any sampling point is greater than the MCL. ~~If a confirmation sample is required by t~~The Division~~,~~ may require one or more additional confirmation samples per paragraph (10). If a confirmation sample is required, the determination of compliance will be based on the annual average of the initial MCL exceedance and any state required confirmation sample(s).~~the determination of compliance will be based on the average of the two samples.~~

(c) Compliance with the maximum contaminant levels for nitrate and nitrite is determined based on one sample if the levels of these contaminants are below the MCLs. If the levels of nitrate and/or nitrite exceed the MCLs in the initial sample, a confirmation sample is required in accordance with paragraph (9) ~~of this section~~, and compliance shall be determined based on the average of the initial and confirmation samples.
(d) If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, the Division may allow the system to give public notice to only the area served by that portion of the system which is out of compliance.
(13~~2~~) **Monitor at Time Designed by Division**. Each public water system shall monitor at the time designated by the Division during each compliance period.
(14~~3~~) **Analyses to Determine Compliance**. All analyses conducted to determine compliance with paragraph (1)(a) of Rule 391-3-5-.18 and this ~~Section~~Rule shall be in accordance with 40 CFR, Part 141.23(k). Detection limits must be no less stringent than the detection limits presented in 40 CFR Part 141.23(a)(4). Arsenic sampling results shall be reported to the nearest 0.001 mg/L.
(15~~4~~) **Certified Laboratories**. Analysis under this ~~section~~rule shall only be conducted by laboratories that have received approval by EPA fulfilling the requirements listed in 40 CFR, Part 141.23(k)(3) or have received certification from the Division. Laboratories may conduct sample analysis under provisional certification until January 1, 1996.
~~(15) **Compliance and Enforcement**. The Division has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by their sanctioned representatives or agencies.~~
(16) **Treatment to Achieve Compliance**. The best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant level for inorganic contaminants identified in ~~Section~~Rule 391-3-5-.18(1)(a) shall be in accordance with 40 CFR, Part 141.62(c).

Rule 391-3-5-.22 Organic Chemical Sampling and Analytical Requirements~~. Amended.~~

(1) **Organic Monitoring.** Beginning on January 1, 1993, analysis of the contaminants listed in ~~Section~~Rule 391-3-5- .18(2)(b)1-21 for the purpose of determining compliance with the maximum contaminant level shall be conducted as follows:
(a) Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source, treatment plant, or within the distribution system.
(b) Surface water systems (or combined surface/ground) shall take a minimum of one sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source, treatment plant, or within the distribution system.
(c) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water representative of all sources is being used).
(d) Each community and non-transient non-community water system shall take four consecutive quarterly samples for each contaminant listed in ~~Section~~Rule 391-3-5-.18(2)(b)2-21 during each compliance period.

(e) If the initial monitoring for contaminants listed in ~~Section~~Rule 391-3-5-.18(2)(b)1-8 and the monitoring for the contaminants listed in ~~Section~~Rule 391-3-5-.18(2)(b)9-21 as allowed in paragraph (1)(q) ~~of this section~~ has been completed by December 31, 1992 and the system did not detect any contaminant listed in ~~Section~~Rule 391-3-5-.18(2)(b)1-21, then each ground and surface water system shall take one sample annually.

(f) After a minimum of three years of annual sampling, the Division may allow groundwater systems with no previous detection of any contaminant listed in ~~Section~~Rule 391-3-5-.18(2)(b) to take one sample during each compliance period.

(g) Each community and non-transient groundwater system which does not detect a contaminant listed in ~~Section~~Rule 391-3-5-.18(2)(b)1-21 may apply to the Division for a waiver from the requirement of paragraph (1)(e) and (1)(f) ~~of this section~~ after completing the initial monitoring. (For the purposes of paragraph (1) ~~this section~~, detection is defined as >0.0005 mg/L.) A waiver shall be effective for no more than six years (two compliance periods). The Division may also issue waivers to small systems for the initial round of monitoring for 1,2,4-trichlorobenzene.

(h) The Division may grant a waiver after evaluating the factors in accordance with 40 CFR, Part 141.24(f)(8-9).

(i) Each community and non-transient surface water system which does not detect a contaminant listed in ~~Section~~Rule 391-3-5-.18(2)(b)1-21 may apply to the Division for a waiver from the requirements of paragraph (1)(e) ~~of this section~~ after completing the initial monitoring. Composite samples from a maximum of five sampling points are allowed, provided that the detection limit of the method used for analysis is less than one-fifth of the MCL. Systems meeting this criteria must be determined by the Division to be non-vulnerable based on a vulnerability assessment during each compliance period. Each system receiving a waiver shall sample at the frequency specified by the Division (if any).

(j) If a contaminant listed in ~~Section~~Rule 391-3-5-.18(2)(b)2-21 is detected at a level exceeding 0.0005 mg/L in any sample, then:

1. The system must monitor quarterly at each sampling point which resulted in a detection.
2. The Division may decrease the quarterly monitoring requirements specified in paragraph (1)(j)(1) ~~of this section~~; provided it has determined that the system is reliably and consistently below the maximum contaminant level. In no case shall the Division make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface water system takes a minimum of four quarterly samples.
3. If the Division determines that the system is reliably and consistently below the MCL, the Division may allow the system to monitor annually. Systems which monitor annually must monitor during the quarter(s) which previously yielded the highest analytical result.
4. Systems which have three consecutive annual samples with no detection of a contaminant may apply to the Division for a waiver as specified in paragraph (1)(g) ~~of this section~~.
5. Groundwater systems which have detected one or more of the following two-carbon organic compounds: trichloroethylene, tetrachloroethylene, 1,2-dichloroethane, 1,1,1-trichloroethane, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, or 1,1-dichloroethylene shall monitor quarterly for vinyl chloride. A vinyl chloride sample shall be taken at each sampling point at which one or more of the two-carbon organic compounds was detected. If the results of the first analysis do not detect vinyl chloride, the Division may reduce the quarterly monitoring frequency of vinyl chloride monitoring to one sample during each compliance period. Surface water systems are required to monitor for vinyl chloride as specified by the Division.

(k) Systems which violate the requirements of ~~Section~~Rule 391-3-5- .18(2)(b)1-21 as determined by paragraph (l)(n) ~~of this section~~ must monitor quarterly. After a minimum of four quarterly samples which show the system is in compliance as specified in paragraph (l)(n) ~~of this section~~, and the Division determines that the system is reliably and consistently below the maximum contaminant level, the system may monitor at the frequency and time specified in paragraph (l)(j)3 ~~of this section~~.

(l) The Division may require a confirmation sample for positive or negative results. If a confirmation sample is required by the Division, the result must be averaged with the first sampling result and the average is used for the compliance determination as specified by paragraph (l)(n) ~~of this section~~. The Division has the discretion to delete results of obvious sampling errors from this calculation.

(m) The Division may reduce the total number of samples a system must analyze by allowing the use of compositing. Composite sampling and their analysis shall be in accordance with 40 CFR, Part 141.24(f)(14).

(n) Compliance with Rule 391-3-5-.18(2)(b)1-21 shall be determined based on the analytical results obtained at each sampling point.

1. For systems which are conducting monitoring at a frequency greater than annual, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance. If the initial sample or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately.
2. If monitoring is conducted annually, or less frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the Division, the determination of compliance will be based on the average of two samples.
3. If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, the Division may allow the system to give public notice to only that area served by that portion of the system which is out of compliance.
4. If a system fails to collect the required number of samples, compliance will be based on the total number of samples collected.

(o) Analysis for the contaminants listed in Rule 391-3-5-.18(2)(b)1-21 shall be conducted in accordance with 40 CFR, Part 141.24(f)(17). These methods are contained in Methods for the Determination of Organic Compounds in Drinking Water, EPA/600/4-88/039, December 1988 and are available from the National Technical Information Service (NTIS) NTIS PB91-231480 and PB91-146027, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

(p) Analysis under ~~this section~~paragraph (1) shall only be conducted by laboratories certified by the Division or laboratories certified by EPA in accordance with conditions listed in 40 CFR, Part 141.24(f)(17).

(q) The Division may allow the use of monitoring data collected after January 1, 1998 required under section 1445 of the Public Health Service Act, as amended by the Federal Safe Drinking Water Act, Public Law 93-523, for purposes of initial monitoring compliance. If the data are generally consistent with the other requirements in this ~~section~~rule, the Division may use these data (i.e., a single sample rather than four quarterly samples) to satisfy the initial monitoring requirement of paragraph (l)(d) ~~of this section~~. Systems which use grandfathered samples and did not detect any contaminant listed in Rule 391-3-5-.18(2)(b)2-21 shall begin monitoring annually

in accordance with paragraph 1(e) ~~of this section~~.
(r) The Division may increase required monitoring where necessary to detect variations within the system.
(s) Each certified laboratory must determine the method detection limit (MDL), as defined in 40 CFR, Part 136 appendix B, at which it is capable of detecting VOCs. The acceptable MDL is 0.0005 mg/L. This concentration is the detection concentration for purposes of ~~this section~~paragraph (1).
(t) Each public water system shall monitor at the time designated by the Division within each compliance period.
(2) **Initial Organic Monitoring.** For systems in operation before January 1, 1993, for purposes of initial monitoring, analysis of the contaminants listed in Rule 391-3-5-.18(2)(b)1-8 for purposes of determining compliance with the maximum contaminant levels shall be conducted as follows:
(a) Ground-water systems shall sample at points of entry to the distribution system representative of each well after any application of treatment. Sampling must be conducted at the same location(s) or more representative location(s) every three months for one year except as provided in paragraph (2)(h) ~~of this section~~.
(b) Surface water systems shall sample at points in the distribution system representative of each source or at entry points to the system after any application of treatment. Surface water systems must sample each source every three months except as provided in paragraph (2)(h) ~~of this section~~. Sampling must be conducted at the same location or a more representative location each quarter.
(c) If the system draws water from more than one source and sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions.
(d) All community water systems and non-transient, non-community water systems serving more than 10,000 people shall analyze all distribution or entry-point samples, as appropriate, representing all source waters beginning no later than January 1, 1988. All community water systems and non-transient, non-community water systems serving from 3,300 to 10,000 people shall analyze all distribution or entry point samples, as required in this paragraph (2), representing source waters no later than January 1, 1989. All other community and non-transient, non-community water systems shall analyze distribution or entry-point samples as required in this paragraph (2), representing all source waters beginning no later than January 1, 1991.
(e) The Division may require confirmation samples for positive or negative results. If a confirmation sample)s) is required by the Division, then the sample results(s) should be averaged with the first sampling result and used for compliance determination in accordance with paragraph (2)(i) ~~of this section~~. The Division has the discretion to delete results of obvious sampling errors from this calculation.
(f) Analysis for vinyl chloride is required only for ground water systems that have detected one or more of the following two-carbon organic compounds: Trichloroethylene, tetrachloroethylene, 1,2-dichloroethane, 1,1,1-trichloroethane, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, or 1,1-dichloroethylene. The analysis for vinyl chloride is required at each distribution or entry point at which one or more of the two-carbon organic compounds were found. If the first analysis does not detect vinyl chloride, the Division may reduce the frequency of vinyl chloride monitoring to once every three years for that sample location or other sample locations that are more representative of the same source. Surface water systems may be required to analyze for vinyl chloride at the discretion of the Division.
(g) The Division may allow compositing of up to five samples from one or more public water

systems.
(h)The Division may reduce the monitoring frequency specified in paragraphs (2)(a) and (b) ~~of this section~~ as explained in this paragraph.
(i) Compliance with Rule 391-3-5-.18(2)(b) shall be determined based on the results of running annual average of quarterly sampling for each sampling location. If one location's average is greater than the MCL, then the system shall be deemed to be out of compliance. If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, only that part of the system that exceeds any MCL as specified in Rule 391-3-5-.18(2)(b) will be deemed out of compliance. The Division may reduce the public notice requirement to that portion of the system which is out of compliance. If any single sample result would cause the annual average to be exceeded, then the system shall be deemed to be out of compliance immediately. For systems that only take one sample per location because no VOCs were detected, compliance shall be based on that one sample.
(j) Analysis under ~~this section~~paragraph (2) shall only be conducted by laboratories certified by the Division or have been certified by the EPA.
(k) The Division may allow the use of monitoring data collected after January 1, 1983, for purposes of monitoring compliance. If the data is consistent with other requirements of this ~~section~~rule~~. T~~, the Division may use that data to represent the initial monitoring if the system is determined by the Division not to be vulnerable under the requirements of ~~this section~~paragraph (2). In addition, the result of EPA's Ground Water Supply Survey may be used in a similar manner for systems supplied by a single well.
(l) The Division may increase required monitoring where necessary to detect variations within the system.
(m) The Division may determine compliance or initiate enforcement action based on analytical results or other information compiled by their sanctioned representatives and agencies.
(n) Each certified laboratory must determine the method detection limit (MDL), as defined in 40 CFR, Part 136 appendix B, at which it is capable of detecting VOCs. The acceptable MDL is 0.0005 mg/L. This concentration is the detection level for purposes of paragraphs ~~391-3-5-.22~~(2)(e), (f), and (g) ~~of this section~~.
(3) **Ongoing Organic Monitoring.** Analysis of the contaminants
listed in Rule 391-3-5-.18(2)(a) for the purposes of determining compliance with the maximum contaminant level shall be conducted as follows:
(a) Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.
(b) Surface water systems shall take a minimum of one sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant. [Note: For purposes of this paragraph, surface water systems include systems with a combination of surface and ground sources.]
(c) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water representative of all sources is being used).
(d) Monitoring frequency:

1. Each community and non-transient non-community water system shall take four consecutive quarterly samples for each contaminant listed in Rule 391-3-5-.18(2)(a) during each compliance period beginning with the compliance period starting January 1, 1993.
2. Systems serving more than 3,300 persons which do not detect a contaminant in the initial compliance period, may reduce the sampling frequency to a minimum of two quarterly samples in one year during each repeat compliance period.
3. Systems serving less than or equal to 3,300 persons which do not detect a contaminant in the initial compliance period may reduce the sampling frequency to a minimum of one sample during each repeat compliance period.

(e) Each community and non-transient water system may apply to the Division for a waiver from the requirement of paragraph (3)(d) ~~of this section~~. A system must reapply for a waiver for each compliance period.

(f) The Division may grant a waiver after evaluating the factors in accordance with 40 CFR, Part 141.24(h)(6).

(g) If an organic contaminant listed in Rule 391-3-5-.18(2)(a) is detected (as defined by paragraph (3)(q) ~~of this section~~) in any sample, then:

1. Each system must monitor quarterly at each sampling point which resulted in a detection.
2. The Division may decrease the quarterly monitoring requirement specified in paragraph (3)(g)1 ~~of this section~~ provided it has determined that the system is reliably and consistently below the maximum contaminant level. In no case shall the Division make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface water system takes a minimum of four quarterly samples.
3. After the Division determines the system is reliably and consistently below the maximum contaminant level the Division may allow the system to monitor annually. Systems which monitor annually must monitor during the quarter that previously yielded the highest analytical result.
4. Systems which have three (3) consecutive annual samples with no detection of a contaminant may apply to the Division for a waiver as specified in paragraph (3)(f) ~~of this section~~.
5. If monitoring results in detection of one or more of certain related contaminants (aldicarb, aldicarb sulfone, aldicarb sulfoxide and heptachlor, heptachlor epoxide), then subsequent monitoring shall analyze for all related contaminants.

(h) Systems which violate the requirements of Rule 391-3-5-.18(2)(a) as determined by paragraph (3)(k) ~~of this section~~ must monitor quarterly. After a minimum of four quarterly samples show the system is in compliance and the Division determines the system is reliably and consistently below the MCL, as specified in paragraph (3)(k) ~~of this section~~, the system shall monitor at the frequency specified in paragraph (3)(g)3 ~~of this section~~.

(i) The Division may require a confirmation sample for positive or negative results. If a confirmation sample is required by the Division, the result must be averaged with the first sampling result and the average used for the compliance determination as specified by paragraph (3)(k) ~~of this section~~. The Division has the discretion to delete results of obvious sampling errors from this calculation.

(j) The Division may reduce the total number of samples a system must analyze by allowing the use of compositing. Composite sampling and their analysis shall be in accordance with 40 CFR, Part 141.24(h)(10).

(k) Compliance with ~~Section~~Rule 391-3-5-.18(2)(a) shall be determined based on the analytical results obtained at each sampling point.

1. For systems which are conducting monitoring at a frequency greater than annual, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance. If the initial sample or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately. Any samples below the detection limit shall be calculated as zero for purposes of determining the annual average.
2. If monitoring is conducted annually, or less frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the Division, the determination of compliance will be based on the average of two samples.
3. If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, the Division may allow the system to give public notice to only that portion of the system which is out of compliance.
4. If a system fails to collect the required number of samples, compliance will be based on the total number of samples collected.

(l) Analysis for the contaminants listed in ~~Section~~Rule 391-3-5-.18(2)(a) shall be conducted in accordance with 40 CFR, Part 141.24(h)(12-13). These methods are contained in "Methods for the Determination of Organic Compounds in Drinking Water", ORD Publications, CERI, EPA/600/4-88/039, December 1988.
(m) If monitoring data collected after January 1, 1990, are generally consistent with the requirements of ~~Section~~Rule 391-3-5-.22(3), then the Division may allow systems to use that data to satisfy the monitoring requirement for the initial compliance period beginning January 1, 1993.
(n) The Division may increase the required monitoring frequency, where necessary, to detect variations within the system (e.g., fluctuations in concentration due to seasonal use, changes in water source).
(o) The Division has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by their sanctioned representatives and agencies.
(p) Each public water system shall monitor at the time designated by the Division within each compliance period.
(q) Detection limits for contaminants used in ~~this~~ paragraph (3)~~Section~~ shall be in accordance with 40 CFR, Part 141.24(h)(18).
(r) Analysis under ~~this~~ paragraph (3)~~section~~ shall conform to paragraph (1) of ~~Section~~Rule 391-3-5-.29.
(s) The best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant level for organic contaminants in ~~Section~~Rule 391-3-5-.18(2)(a) and (2)(b) shall be in accordance with 40 CFR, Part 141.61(b).

391-3-5-.23 Coliform Sampling.

NOTE: draft amendments to portions of paragraph (8) are excerpted below

…
(8) The provisions of paragraphs (1) and (4) ~~of this Rule~~ are applicable until March 31, 2016. The provisions of paragraphs (2), (3), (5), (6), and (7) ~~of this Rule~~ are applicable until all

required repeat monitoring under paragraph (2) ~~of this Rule~~ and fecal coliform or *E. coli* testing under paragraph (5) ~~of this Rule~~ that was initiated by a total coliform-positive sample taken before April 1, 2016 is completed, as well as analytical method, reporting, recordkeeping, public notification, and consumer confidence report requirements associated with that monitoring and testing. Beginning April 1, 2016, the provisions of Rule 391-3-5-.55 are applicable, with systems required to begin regular monitoring at the same frequency as the system-specific frequency required on March 31, 2016, except for seasonal systems which must monitor monthly beginning April 1, 2016.

391-3-5-.24 Disinfectant Residuals, Disinfection Byproducts, and Disinfection Byproduct Precursors Sampling, Analytical and Other Requirements~~.~~

NOTE: draft amendments to portions of paragraph (5) are excerpted below

…

(5) **Monitoring and Compliance for Disinfectant Residuals.**

…

(b) *Routine monitoring*. Until March 31, 2016, community and non-transient non-community water systems that use chlorine or chloramines must 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, as specified in 40 CFR §141.21. Beginning April 1, 2016, community and non-transient non-community water systems that use chlorine or chloramines must 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, as specified in Rule 391-3-5-.55(4) through (8). 40 CFR Part 141 Subpart H systems may use the results of residual disinfectant concentration sampling conducted under 40 CFR §141.74(c)(3)(i) for systems which filter, in lieu of taking separate samples.

…

Rule 391-3-5-.25 Treatment Techniques, Lead and Copper Requirements

NOTE: draft amendments to portions of paragraphs (1), (2), (4) - (9), and (12) are excerpted below

(1) **General Requirements**.

…

(c) Lead and copper action levels:

1. The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(7) is greater than 0.015 mg/L.

2. The copper action level is exceeded if the concentration of copper in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(7) is greater than 1.3 mg/L.

3. Calculation of the lead and copper action levels shall be based on the "90th percentile" rule in accordance with 40 CFR, Part 141.80(c)(3).
(d) Corrosion control treatment requirements:
1. All water systems shall install and operate optimal corrosion control treatment as defined in ~~Section~~Rule 391-3-5-.02(73).
2. Any water system that complies with the applicable corrosion control treatment requirements specified by the Division under ~~Section~~paragraphs ~~391-3-5-.25~~(2) and (3) shall be deemed in compliance with the treatment requirement contained in paragraph (d)(1) ~~of this section~~.
(e) Source water treatment requirements; Any system exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the "Division" under ~~Section~~paragraph ~~391-3-5-.25~~(4).
(f) Lead service line replacement requirements; Any system exceeding the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service replacement requirements contained in ~~Section~~paragraph ~~391-3-5-.25~~(5).
(g) Public education requirements; Pursuant to 40 CFR, Part 141.85, all water systems must provide a consumer notice of lead tap water monitoring results to persons served at the sites/taps that are tested. Any system exceeding the lead action level shall implement the public education requirements contained in ~~Section~~paragraph ~~391-3-5-.25~~(6).
(h) Monitoring and analytical requirements; Tap water monitoring for lead and copper, monitoring for water quality parameters, source water monitoring for lead and copper, and analyses of the monitoring results under this subpart shall be completed in compliance with ~~Section~~paragraphs ~~391-3-5-.25~~(7) - (10).
(i) Reporting requirements; Systems shall report to the Division any information required by the treatment provisions of this subpart and ~~Section~~Rule 391-3-5-.30(7).
(j) Record keeping requirements; Systems shall maintain records in accordance with ~~Section~~Rule 391-3-5-.15.
(k) Violation of national primary drinking water regulations; Failure to comply with the applicable requirements of ~~Section~~paragraphs ~~391-3-5-.25~~(1) - (10), including requirements established by the Division pursuant to the provisions, shall constitute a violation of the national primary drinking water regulations for lead and/or copper.
…
(2) **Applicability of Corrosion Control Treatment Steps to Small, Medium and Large Water Systems**.
(a) Systems shall complete the applicable corrosion control treatment requirements described in ~~Section~~paragraph ~~391-3-5-.25~~(3) by the deadlines established in this ~~section~~paragraph.
1. A large system (serving more than 50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (2)(d) ~~of this section~~, unless it is deemed to have optimized corrosion control under paragraphs (2)(b)2. or (2)(b)3. ~~of this section~~.
2. A small system (serving less than 3,301 persons) and a medium-size system (serving more than 3,300 and less than 50,001 persons) shall complete the corrosion control treatment steps specified in paragraph (2)(d) ~~of this section~~, unless it is deemed to have optimized corrosion control under paragraphs (2)(b)1., (2)(b)2., or (2)(b)3. ~~of this section~~.
(b) A system is deemed to have optimized corrosion control and is not required to complete the applicable control treatment steps identified in this section if the system satisfies one of the criteria specified in paragraphs (2)(b)1. through (2)(b)3. ~~of this section~~. Any such system deemed

to have optimized corrosion control under this paragraph, and which has treatment in place, shall continue to operate and maintain optimal corrosion control treatment and meet any requirements that the State determines appropriate to ensure optimal corrosion control treatment is maintained.
1. A small or medium-size water system is deemed to have optimized corrosion control if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(7).
2. Any water system may be deemed by the Division to have optimized corrosion control treatment if the system demonstrates to the satisfaction of the Division that it has conducted activities equivalent to the corrosion control steps applicable to such system under this ~~section~~rule. If the Division makes this determination, it shall provide the system with written notice explaining the basis for its decision and shall specify the water quality control parameters representing optimal corrosion control in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(3). Water systems deemed to have optimized corrosion control under this paragraph shall operate in compliance with the Division designated optimal water quality control parameters in accordance with ~~391-3-5-.25~~paragraph (3) and continue to conduct lead and copper tap water quality parameter sampling in accordance with ~~Rule sections~~paragraphs ~~391-3-5-.25~~(7)(d) 3. and ~~391-3-5-.25~~(8)(d). A system shall provide the Division with the following information in order to support a determination under this paragraph. (i) the results of all test samples collected for each of the water quality parameters in ~~Section~~paragraph ~~391-3-5-.25~~(3).
(ii) a report explaining the test methods used by the water system to evaluate the corrosion control treatments listed in ~~Section~~paragraph ~~391-3-5-.25~~(3), the results of all tests conducted, and the basis for the system's selection of optimal corrosion control treatment.
(iii) a report explaining how corrosion control has been installed and how it is being maintained to insure minimal lead and copper concentrations at consumers' taps.
(iv) the results of tap water samples collected in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(7) at least once every six months for one year after corrosion control has been installed.
3. Any water system is deemed to have optimized corrosion control if it submits results of tap water monitoring conducted in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(7) and source water monitoring conducted in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(9) that demonstrates for two consecutive six-month monitoring periods that the difference between the 90th percentile tap water lead level computed under ~~Section~~paragraph ~~391-3-5-.25~~(1)(c) 3., and the highest source water lead concentration, is less than the Practical Quantitation Level for lead specified in ~~Section~~paragraph ~~391-3-5-.25~~(10).
…
(ii) Any water system deemed to have optimized corrosion control in accordance with this paragraph shall continue monitoring for lead and copper at the tap no less frequently than once every three calendar years using the reduced number of sites specified in Rule 391-3-5-.25(7)(c) and collecting samples at times and locations specified in Rule 391-3-5- .25(7)(d) 4.
…
(iv) As of July 12, 2001, a system is not deemed to have optimized corrosion control under this paragraph, and shall implement corrosion control treatment pursuant to paragraph (2)(b)-3.(v) ~~of this section~~ unless it meets the copper action level.
(v) Any system triggered into corrosion control because it is no longer deemed to have optimized corrosion control under this paragraph shall implement corrosion control treatment in accordance with the deadlines in paragraph (2)(d) ~~of this section~~. Any such large system shall adhere to schedule specified in that paragraph for medium-size systems, with the time periods for

completing each step being triggered by the date the system is no longer deemed to have optimized corrosion control under this paragraph.
(c) Any small or medium-size water system that is required to complete the corrosion control steps due to its exceedance of the lead or copper action level may request approval from the Division to cease completing the treatment steps if the system meets both lead and copper action levels during each of two consecutive monitoring periods conducted pursuant to ~~Section~~paragraph ~~391-3-5-.25~~(7) and submits the results to the Division. If approval is granted, any such water system thereafter exceeds the lead or copper action level during any monitoring period, the system (or the Division, as the case may be) shall recommence completion of the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety. The Division may require a system to repeat treatment steps previously completed by the system where the Division determines that this is necessary to implement properly the treatment requirements of this ~~section~~rule. The Division shall notify the water system in writing of such a determination and explain the basis for its decision. The requirement for any small- or medium-size water system to implement corrosion control treatment steps in accordance with paragraph (2)(d) ~~of this section~~ (including, water systems deemed to have optimized corrosion control under paragraph (2)(b)1. ~~of this section~~) is triggered whenever any small- or medium-size water system exceeds the lead or copper action level.
(d) Treatment steps and deadlines for all systems affected by this rule shall be in accordance with 40 CFR, Part 141.81(d) and (e).
…
(4) **Source Water Treatment Requirements**. Systems shall complete the applicable source water monitoring and treatment requirements, described in the referenced portions of paragraph (4)(b) ~~of this section~~, and in ~~Section~~paragraphs ~~391-3-5-.25~~(7) and (9) by the following deadlines.
(a) Deadlines for Completing Source Water Treatment Steps.
1. Step 1: A system exceeding the lead or copper action level shall complete lead and copper source water monitoring (~~Section~~paragraph ~~391-3-5-.25~~(9)(b)) and make a treatment recommendation to the Division (~~Section~~paragraph ~~391-3-5-.25~~(4)(b) 1.) no later than 180 days after the end of the monitoring period in which the lead or copper action level was exceeded.
2. Step 2: The Division shall make a determination regarding source water treatment (~~Section~~paragraph ~~391-3-5-.25~~(4)(b) 2.) within 6 months after submission of monitoring results under Step 1.
3. Step 3: If the Division requires installation of source water treatment, the system shall install the treatment (~~Section~~paragraph ~~391-3-5-.25~~(4)(b) 3.) within 24 months after completion of Step 2.
4. Step 4: The system shall complete follow-up tap water monitoring for lead and copper (~~section~~rule ~~391-3-5-.25~~(7)(d) 2.) and source water monitoring for lead and copper (~~Section~~paragraph ~~391-3-5-.25~~(9)(c)) within 36 months after completion of Step 2.
5. Step 5: The Division shall review the system's installation and operation of source water treatment and specify maximum permissible source water levels (~~Section~~paragraph ~~391-3-5-.25~~(4)(b) 4.) within 6 months after completion of Step 4.
6. Step 6: The system shall operate in compliance with the Division specified maximum permissible lead and copper source water levels (~~Section~~paragraph ~~391-3-5-.25~~(4)(b) 4.) and continue source water monitoring for lead and copper (~~Section~~paragraph ~~391-3-5-.25~~(9)(d)).
(b) Description of Source Water Treatment Requirements:

1. System treatment recommendation. Any system which exceeds the lead or copper action level shall recommend in writing to the Division the installation and operation of one of the source water treatments listed in paragraph (4)(b)2. ~~of this section~~. A system may recommend that no treatment be installed based upon a demonstration that source water treatment is not necessary to minimize lead and copper levels at users' taps.
…
3. Installation of source water treatment. Each system shall properly install and operate the source water treatment designated by the Division under paragraph (4)(b)2. ~~of this section~~.
…
5. Continued operation and maintenance. Each water system shall maintain lead and copper levels below the maximum permissible concentrations designated by the Division at each sampling point monitored in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(9). The system is out of compliance with this paragraph if the level of lead and/or copper at any sampling point is greater than the maximum permissible concentration designated by the Division.
6. Modification of Division treatment decisions. Upon its own initiative or in response to a request by a water system or other interested party, the Division may modify its determination of the source water treatment under paragraph (2) ~~of this section~~, or maximum permissible lead and copper concentrations for finished water entering the distribution system under paragraph (4) ~~of this section~~. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The Division may modify its determination where it concludes that such change is necessary to ensure that the system continues to minimize lead and copper concentrations in source water. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the Division's decision, and provide an implementation schedule for completing the treatment modifications.
…
(5) **Lead Service Line Replacement Requirements**. Systems may be required to replace lead service lines in accordance with 40 CFR Parts 141.84 and 141.90(e) when they fail to meet the lead action level in tap samples. 40 CFR~~,~~ Part 141.84 describes the conditions that will require lead service line replacement.
(6) **Public Educational and Supplemental Monitoring Requirements**. All water systems must deliver a consumer notice of lead tap water monitoring results to persons served by the water system at the sites/taps that are tested. A water system that exceeds the lead action level based on tap water samples collected in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(7) shall carry out a public education program as described in 40 CFR, Part 141.85.
(7) **Monitoring Requirements for Lead and Copper in Tap Water**.
(a) Sample site location.
1. By the applicable date for commencement of monitoring under paragraph (7)(d)1. ~~of this section~~, each water system shall complete a materials evaluation of its distribution system. In order to identify a pool of targeted sampling sites that meets the requirements of this ~~section~~rule, and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (7)(c) ~~of this section~~. All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices.
2. A water system shall use the information on lead, copper, and galvanized steel that it is required to collect under ~~Section~~Rule 391-3-5-~~-~~.26(~~3~~4) of this part [special monitoring for

corrosivity characteristics] when conducting a materials evaluation. When an evaluation of the information collected pursuant to ~~Section~~Rule 391-3-5-.26(~~3~~4) is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in paragraph (7)(a)1.~~ of this section~~, the water system shall review the sources of information listed below in order to identify a sufficient number of sampling sites. In addition, the system shall seek to collect such information where possible in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities):

…

7. A non-transient non-community water system with insufficient tier 1 sites that meet the targeting criteria in paragraph (7)(a)6.~~ of this section~~ shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the nontransient non-community water system shall use representative sites throughout the distribution system. For the purpose of this paragraph, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

8. Any water system whose sampling pool does not consist exclusively of tier 1 sites shall demonstrate to the Division under ~~Section~~paragraph ~~391-3-5-.25~~(11) why a review of the information listed in paragraph (7)(a)2.~~ of this section~~ was inadequate to locate a sufficient number of tier 1 sites. Any community water system which includes tier 3 or other representative sampling sites in its sampling pool shall demonstrate why it was unable to locate a sufficient number of tier 1 and tier 2 sampling sites.

…

(b) Sample collection methods.

1. All tap samples for lead and copper collected in accordance with this subpart, with the exception of lead service line samples collected under ~~Section~~paragraph ~~391-3-5-.25~~(5), shall be first draw samples.

…

(c) Number of samples.

Water systems shall collect at least one sample during each monitoring period specified in paragraph (7)(d)~~ of this section~~ from the number of sites listed in the first column below ("# of Sites Standard Monitoring") of the table in this paragraph. A system conducting reduced monitoring under paragraph (7)(d)4.~~ of this section~~ shall collect at least one sample from the number of sites specified in the second column ("# of Sites Reduced Monitoring") of the table in this paragraph during each monitoring period specified in paragraph (7)(d)4.~~ of this section~~. Such reduced monitoring sites shall be representative of the sites required for standard monitoring. States may specify sampling locations when a system is conducting reduced monitoring. The table is as follows:

System Size Population Served	Number of Sites Standard Monitoring	Number of Sites Reduced Monitoring
100,001 or more	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
100 or fewer	5	5

(d) Timing of monitoring.
1. Initial tap sampling: Two consecutive six-month periods, between January-June and between July-December.
(i) All large systems shall monitor at the required number of standard monitoring sites during two consecutive six-month periods.
(ii) All small and medium-size systems shall monitor at the required number of standard monitoring sites during each six-month monitoring period until:
(I) the system exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under ~~Section~~paragraph ~~391-3-5-.25~~(2), in which case the system shall continue monitoring in accordance with paragraph (7)(d)2.~~ of this section~~, or
(II) the system meets the lead or copper action levels during two consecutive six-month monitoring periods, in which case the system may reduce monitoring in accordance with paragraph (7)(d)4.~~ of this section~~.
2. Monitoring after installation of corrosion control and source water treatment.
(i) Any large system which installs optimal corrosion control treatment pursuant to ~~Section~~paragraph ~~391-3-5-.25~~(2)(d) shall monitor during two consecutive six-month monitoring periods by the date specified in ~~Section~~paragraph ~~391-3-5-.25~~(2)(d).
(ii) Any small or medium-size system which installs optimal corrosion control treatment pursuant to ~~Section~~paragraph ~~391-3-5-.25~~(2) shall monitor during two consecutive six-month monitoring periods by the date specified in ~~Section~~paragraph ~~391-3-5-.25~~(2)(d).
(iii) Any system which installs source water treatment pursuant to ~~Section~~paragraph ~~391-3-5-.25~~(4)(a) 3. shall monitor during two consecutive six-month monitoring periods by the date specified in ~~Section~~paragraph ~~391-3-5-.25~~(4)(a) 4.
3. Monitoring after Division specifies water quality parameter values for optimal corrosion control. After the Division specifies the value for water quality control parameters under ~~Section~~paragraph ~~391-3-5-.25~~(3), the system shall monitor during each subsequent six-month monitoring period, with the first monitoring period to begin on the date the Division specifies the optimal values under ~~Section~~paragraph ~~391-3-5-.25~~(3).
4. Reduced monitoring.
(i) A small or medium-size water system that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the number of samples in accordance with paragraph (7)(c)~~ of this section~~, and reduce the frequency of sampling to once per year between the months of June and September of the calendar year immediately following the end of the second consecutive six-month monitoring period.
(ii) Any water system that meets the lead and copper action levels and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the Division under ~~Section~~paragraph ~~391-3-5-.25~~(3) during each of two consecutive six-month monitoring periods may reduce the frequency of monitoring to once per year between the months of June and September and reduce the number of lead and copper samples in accordance with paragraph (7)(c)~~ of this section~~ if it receives written approval from the division. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period. The Division shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with paragraph ~~391-3-5-.25~~(11) and shall notify the water system in writing when the Division determines the water system is eligible to commence reduced monitoring to once every three (3) years pursuant to this paragraph. The Division shall review, and where appropriate, revise its determination when the

system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.
(iii) A small or medium-size water system that meets the lead and copper action levels during three consecutive years of monitoring may reduce the frequency of monitoring for lead and copper from annually to once every three years. Sampling must still occur between the months of June and September of the year in which monitoring is required. Any water system that meets the lead and copper action levels and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the Division under ~~Section~~paragraph ~~391-3-5-.25~~(3) during three consecutive years of monitoring may reduce the frequency from annually to once every three years if it receives written approval from the Division. Samples collected once every three years must be collected no later than every third calendar year. The Division shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with paragraph ~~391-3-5-.25~~(11) and shall notify the system in writing when it determines the system is eligible to reduce the frequency of monitoring to once every three years. The Division shall review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.
(iv) A water system that reduces the number and frequency of sampling shall collect these samples from representative sites included in the original pool of targeted sampling sites identified in paragraph (7)(a)1. ~~of this section~~. Systems sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August or September unless the Division has approved a different sampling period in accordance with paragraph (7)(d)4.(iv)(1) ~~of this section~~.
(I) The Division, at its discretion, may approve a different period for conducting the lead and copper tap sampling for systems collecting a reduced number of samples. Such a period shall be no longer than four consecutive months and must represent a time of normal operation where the highest levels of lead are most likely to occur. For non-transient non-community water system that does not operate during the months of June, through September, and for which the period of normal operation where the highest levels of lead are most likely to occur is not known, the Division shall designate a period that represents a time of normal operation for the system. Any alternate reduced monitoring must meet criteria set forth in 40 CFR, part 141.86(d)(4)(iv)(A).
(II) Systems monitoring annually, that have been collecting samples during the months of June through September and that receive Division approval to alter their sample collection period under paragraph (7)(d)4.(iv)(I) ~~of this section~~, must collect their next round of samples during a time period that ends no later than 21 months after the previous round of sampling. Systems monitoring triennially that have been collecting samples during the months of June through September, and receive Division approval to alter the sampling collection period per paragraph (7)(d)4.(iv)(I) ~~of this section~~, must collect their next round of samples during a time period that ends no later than 45 months after the previous round of sampling. Subsequent rounds of sampling must be collected annually or triennially, as requested by this ~~section~~rule. Small systems with waivers, granted pursuant to paragraph (7)(g) ~~of this section~~, that have been collecting samples during the months of June through September and receive Division approval to alter their sample collection period under paragraph (7)(d)4.(iv)(I) ~~of this section~~ must collect their next round of samples before the end of the 9-year period.
(v) Any water system that demonstrates for two consecutive 6- month monitoring periods that the tap water lead level computed under ~~Rule~~paragraph ~~391-3-5-.25~~(1)(c) 3. is less than or equal

to 0.005 mg/L and the tap water copper level computed under ~~Rule~~paragraph ~~391-3-5-.25~~(1)(c) 3. is less than or equal to 0.65 mg/L may reduce the number in accordance with paragraph (3) ~~of this section~~ and reduce the frequency of sampling to once every three calendar years.

(vi) (I) A small or medium-size water system subject to reduced monitoring that exceeds the lead or copper action level shall resume sampling in accordance with paragraph (7)(d)3.~~of this section~~ and collect the number of samples for standard monitoring under paragraph (7)(c) ~~of this section~~. Such a system shall also conduct water quality parameter monitoring in accordance with 40 CFR, Part 141.87(b), (c) or (d) (as appropriate) during the monitoring period in which it exceeded the action level. Any such system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (7)(c) ~~of this section~~ after it has completed two consecutive six-month rounds of monitoring with no action level exceeded.

(II) Any water system subject to the reduced monitoring frequency that fails to meet the lead or copper action level during any four-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 Division for more than nine days in any six-month monitoring period shall conduct tap water sampling for lead and copper at the frequency specified in paragraph (7)(d)3. ~~of this section~~, collect the number of samples specified for standard monitoring under paragraph (c) ~~of this section~~, and shall resume monitoring for water quality parameters within the distribution system in accordance with 40 CFR, Part 141.87(d). This standard tap water sampling shall begin no later than the six-month period beginning January 1 of the calendar year following the lead or copper action level exceedance or water quality parameter excursion. Such a system may resume reduced monitoring for lead and copper at the tap and for water quality parameters within the distribution system under the following conditions:

I. The system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (7)(c) ~~of this section~~ after it has completed two consecutive six-month rounds of monitoring that meet both lead and copper action levels and the system has received written approval from the Division that it is appropriate to resume reduced monitoring on an annual frequency. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

…

(vii) Any water system subject to a reduced monitoring frequency under paragraph (7)(d)(4) ~~of this section~~ shall notify the Division in writing of any upcoming long-term change in treatment or addition of a new source as described in 40 CFR, Part 141.90(a)(3). The Division must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The Division may require the system to resume sampling in accordance with paragraph (7)(d)3. ~~of this section~~ and collect the number of samples specified for standard monitoring under paragraph (7)(c) ~~of this section~~ or take other appropriate steps such as increased water quality parameter monitoring or re-evaluation of its corrosion control treatment given the potentially different water quality considerations.

(e) Additional monitoring by systems. The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the Division in making any determinations (i.e., calculating the 90th percentile lead or copper level) under this subpart or 40 CFR Part 141.82.

(f) Invalidation of lead or copper tap water samples. A sample invalidated under this paragraph does not count toward determining lead or copper 90th percentile levels under paragraph ~~391-3-~~

~~5..25~~(1)(c) or toward meeting the minimum monitoring requirements of paragraph (7)(c) ~~of this section~~.
1. The Division may invalidate a lead or copper tap water sample if at least one of the following conditions is met.
(i) The laboratory establishes that improper sample analysis caused erroneous results.
(ii) The Division determines that the sample was taken from a site that did not meet the site selection criteria of this ~~section~~rule.
(iii) The sample container was damaged in transit.
(iv) There is substantial reason to believe that the sample was subject to tampering.
2. The system must report the results of all samples to the Division and all supporting documentation for samples the system believes should be invalidated.
3. To invalidate a sample under paragraph (7)(f)1. ~~of this section~~, the decision and the rationale for the decision must be documented in writing. The Division may not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than that of the original sample.
4. The water system must collect replacement samples for any samples invalidated under this section if, after the invalidation of one or more samples, the system has too few samples to meet the minimum requirements of paragraph (7)(c) ~~of this section~~. Any such replacement samples must be taken as soon as possible, but no later than 20 days after the date the Division invalidates the sample or by the end of the applicable monitoring period, whichever occurs later. Replacement samples taken after the end of the applicable monitoring period shall not be used to meet the monitoring requirements of a subsequent monitoring period. The replacement samples shall be taken at the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.
(g) Monitoring waivers for small systems. Any small system that meets the criteria of 40 CFR, Section 141.86(g) may apply to the Division to reduce the frequency of monitoring for lead and copper in accordance with the requirements of 40 CFR Section 141.86 (g).
(8) **Monitoring Requirements for Water Quality Parameters**. All large water systems and all small and medium-size systems that exceed the lead or copper action level shall monitor water quality parameters in addition to lead and copper in accordance with this ~~section~~paragraph. The requirements of this ~~section~~paragraph are summarized in a table at the end of 40 CFR, Part 141.87.
(a) Systems will have to monitor water quality parameters at different locations.
…
3. Number of samples.
(i) Systems shall collect two tap samples for applicable water quality parameters during each monitoring period as described in paragraphs (8)(b) thru (8)(e) ~~of this section~~. The following number of sites is required:
Distribution System Tap Sampling Requirements for Water Quality Parameters. (Other Than Lead and Copper)

System Size Population Served	**Number of Distribution Sampling Sites Base Monitoring**
100,001 or more	25
10,001 to 100,000	10
3,301 to 10,000	3
501 to 3,300	2

System Size Population Served	Number of Distribution Sampling Sites Base Monitoring
101 to 500	1
100 or fewer	1

(ii) Except as provided in paragraph (8)(c) ~~of this section~~, systems shall collect two samples for each water quality parameter at each entry point to the distribution system during each monitoring period as described in paragraph (8)(b) ~~of this section~~. During each monitoring period specified in paragraphs (8)(c)-(8)(e) ~~of this section~~, systems shall collect one sample for each applicable water quality parameter at each entry point to the distribution system.

(b) Initial Sampling - All large water systems shall measure the water quality parameters listed below at distribution system taps and at each entry point to the distribution system during each six-month monitoring period (specified in ~~Section~~paragraph ~~391-3-5-.25~~(7)(d) 1.).

1. pH;
2. alkalinity;
3. calcium;
4. conductivity;
5. orthophosphate, when an inhibitor containing phosphate is used;
6. silica, when an inhibitor containing silica is used;
7. Water temperature.

(c) Monitoring after installation of corrosion control. All large systems which install optimal corrosion control treatment according to ~~Section~~paragraph ~~391-3-5-.25~~(7)(d) 2.(i) shall measure water quality parameters at the locations and frequencies listed below during each six month monitoring period. All small or medium size systems which install optimal corrosion treatment shall conduct such monitoring during each six-month monitoring period specified in ~~Section~~paragraph ~~391-3-5-.25~~(7)(d) 2.(ii) only when the system exceeds the lead and copper action level.

…

(d) Monitoring after the Division specifies water quality parameter values for optimal corrosion control will be as follows. The Division will specify the values for applicable water quality control parameters reflecting optimal corrosion control treatment in accordance with 40 CFR Part, 141.82(f). All large systems shall measure the applicable water quality parameters in accordance with paragraph (8)(c) ~~of this section~~ and determine compliance with the requirements of paragraph ~~391-3-5-.25~~(7)(d) 3. every six months with the first six-month period to begin on January 1 or July 1, whichever comes first, after the Division specifies optimal values under 40 CFR, Part 141.82(f). Any small or medium-size system shall conduct such monitoring during each six-month period specified in this paragraph in which the system exceeds the lead and/or copper action level(s). For any such small and medium-size system that is subject to a reduced monitoring frequency pursuant to 391-3-5-.25(7)(d) 4. at the time of the action level exceedance, the start of the applicable six-month period under this paragraph shall coincide with the start of the applicable monitoring period under paragraph ~~391-3-5-.25~~ (7)(d) 4. Compliance with the division-designated optimal water quality parameter values shall be determined as specified under paragraph ~~391-3-5-.25~~ (7)(d) 3.

(e) Reduced monitoring for water quality parameters.

1. Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of two consecutive six-month

monitoring periods under paragraph (8)(d) ~~of this section~~ shall continue monitoring at the entry point(s) to the distribution system as specified in paragraph (8)(c)2. ~~of this section~~. Such system may collect two tap samples for applicable water quality parameters from the following reduced number of sites during each six-month monitoring period.

System Size Population Served	**Number of Distribution Sampling Sites Reduced Monitoring**
100,001 or more	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
100 or fewer	1

2. (i) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Division ~~under Section 391-3-5-.25(3)~~ during three consecutive years of monitoring may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in paragraph (8)(e)1. ~~of this section~~ from every six months to annually. This sampling begins during the calendar year immediately following the end of the monitoring period in which the third consecutive year of six-month monitoring occurs. Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Division under 40 CFR Part 141.82(f) or Rule 391-3-5-.25(3) during three consecutive years of annual monitoring under this paragraph may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters from annually to every three years. This sampling begins no later than the third calendar year following the end of the monitoring period in which the third consecutive year of monitoring occurs.

(ii) A water system may reduce the frequency with which it collects tap samples for applicable water quality parameters specified in paragraph (8)(e)1. ~~of this section~~ to every three years if it demonstrates during two consecutive monitoring periods that its tap water lead level at the 90th percentile is less than or equal to the practical quantitation limit (PQL) for lead specified in paragraph ~~391-3-5-.25~~(10), that its tap water copper level is less than or equal to 0.65 mg/L for copper in paragraph ~~391-3-5-.25~~(2)(c), and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the division under paragraph ~~391-3-5-.25~~(2)(d). Monitoring conducted every three years must be done no later than every third calendar year.

3. A water system that conducts sampling annually shall collect these samples evenly throughout the year so as to reflect seasonal variability.

4. Any water system subject to reduced monitoring frequency that fails to operate at or above the minimum value within the range of values for the water quality parameters specified by the Division under ~~Section~~paragraph ~~391-3-5-.25~~(3) shall resume distribution system tap water sampling in accordance with the number and frequency requirements in paragraph (8)(d) ~~of this section~~. Such a water system may resume annual monitoring for water quality parameters at the tap at the reduced number of sites specified under ~~Section~~paragraph ~~391-3-5-.25~~(8)(e) 1. after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of that paragraph or may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites after the water system demonstrates through subsequent rounds of

monitoring that the water system meets the criteria of either paragraphs (8)(e)2.(i) or (e)2.(ii) ~~of this section~~ or both.
(f) Additional monitoring by systems must be approved by the Division.
(9) **Monitoring Requirements for Lead and Copper in Source Water**.
(a) Sample location, collection methods, and number of samples.
1. A water system that fails to meet the lead or copper action level on the basis of routine tap samples collected in accordance with ~~Section~~paragraph ~~391-3-5-.25~~(7) shall collect lead and copper source water samples in accordance with the requirements regarding sample location, number of samples, and collection methods specified in 40 CFR, Part 141.88(a)(1)(i)-(iv) and (A)-(B).
2. Where the results of sampling indicate an exceedance of maximum permissible source water levels established under ~~Section~~paragraph ~~391-3-5-.25~~(4)(b) 4., the Division may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point. If a Division-required confirmation sample is taken for lead or copper, then the results of the initial and confirmation sample shall be averaged in determining compliance with the Division-specified maximum permissible levels. Any sample value below the detection limit shall be considered to be zero. Any value above the detection limit but below the PQL shall either be considered as the measured value or be considered one-half the PQL.
…
(c) Monitoring frequency after installation of source water treatment. Any system which installs source water treatment pursuant to ~~Section~~paragraph ~~391-3-5-.25~~(4)(a) 2. shall collect an additional source water sample from each entry point to the distribution system during two consecutive six-month monitoring periods by the deadline specified in ~~Section~~paragraph ~~391-3-5-.25~~(4)(a) 4.
(d) Monitoring frequency after Division specifies maximum permissible source water levels or determines that source water treatment is not needed.
1. A system shall monitor at the frequency specified below in cases where the Division specifies maximum permissible source water levels under ~~Section~~paragraph ~~391-3-5-.25~~(4)(b) 4. or determines that the system is not required to install source water treatment under ~~Section~~paragraph ~~391-3-5-.25~~(4)(b) 2.
(i) A water system using only groundwater shall collect samples once during the three-year compliance period (as that term is defined in ~~Section~~Rule 391-3-5-.02-) in effect when the applicable Division determination under paragraph (9)(d)1. ~~of this section~~ is made. Such systems shall collect samples once during each subsequent compliance period. Triennial samples shall be collected every third year.
(ii) A water system using surface water (or a combination of surface and groundwater) shall collect samples once during each year, the first annual monitoring period to begin during the year in which the applicable Division determination is made under paragraph (9)(d)1. of this.
2. A system is not required to conduct source water sampling for lead and/or copper if the system meets the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the system under paragraphs (9)(d)1.(i) or (ii) ~~of this section~~.
(e) Reduced monitoring frequency.
1. A water system using only ground water may reduce the monitoring frequency for lead and copper in source water to once during each nine-year compliance cycle, as is defined in 40 CFR,

Part 141.2, provided the samples are collected no later than every ninth calendar year and if the system meets one of the following:
(i) The system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the Division under Rule 391-3-5-.25(1)(c) during at least three consecutive compliance periods under paragraph (9)(d)1. ~~of this section~~; or
(ii) The Division has determined that source water treatment is not needed and the system demonstrates that, at least three consecutive compliance periods in which sampling was conducted under paragraph (9)(d)1. ~~of this section~~, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.
2. A water system using surface water or a combination of surface and groundwater may reduce the monitoring frequency in paragraph (9)(d)1. ~~of this section~~ to once during each nine-year compliance cycle, as is defined in 40 CFR, Part 141.2, provided the samples are collected no later than every ninth calendar year and if the system meets one of the following:
(i) The system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the Division under ~~Rule~~paragraph ~~391-3-5-.25~~(1)(c) during at least three consecutive years; or
(ii) The Division has determined that source water treatment is not needed and the system demonstrates that, for at least three consecutive years, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.
3. A water system that uses a new source of water is not eligible for reduced monitoring for lead and/or copper until concentrations in samples collected from the new source during three consecutive monitoring periods are below the maximum permissible lead and copper concentrations specified in ~~Section~~paragraph ~~391-3-5-.25~~(4)(a) 5.
…
(12) **Record Keeping Requirements**. All systems subject to the requirements of this ~~section~~rule shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, Division determinations, and any other information required in accordance with 40 CFR, Part 141.91.
…

391-3-5-.27 Monitoring Frequency and Analytical Methods for Radioactivity in Community Water Systems~~.~~

NOTE: draft amendments to portions of paragraphs (1)-(5), (9), and (11)-(13), and a new draft paragraph (20), are excerpted below

(1) **Monitoring Requirements for Gross Alpha Particle Activity, Radium-226, ~~and~~ Radium-228, and Uranium.**
(a) Compliance with ~~paragraph (5) of~~ Rule 391-3-5-.18(5) shall be based on the analysis of an annual composite of four consecutive quarterly samples or the average of the analyses of four samples obtained at quarterly intervals.
…

(b) The initial analysis required by subparagraph (1)(a) ~~of this section~~ for new water systems shall be completed within two years from the effective date of the permit to operate.
(c) Suppliers of water shall monitor at least once every four years following the procedure required by subparagraph (1)(a) ~~of this Section~~. At the discretion of the Director when an annual record taken in conformance with subparagraph (1)(a) ~~of this Section~~ has established that the average annual concentration is less than half the maximum contaminant levels established by ~~paragraph (6) of Section~~Rule 391-3-5-.18(6), analysis of a single sample may be substituted for the quarterly sampling procedure required by subparagraph (1)(a) ~~of this Section~~.
…
2. A supplier of water shall monitor in conformance with subparagraph (1)(a) ~~of this Section~~ within one year of the introduction of a new water source for a community water system. More frequent monitoring shall be conducted when ordered by the Director in the event of possible contamination or when changes in the distribution system or treatment process occur which may increase the concentration of radioactivity in drinking water.
…
4. Monitoring for compliance with ~~paragraph (5) of Section~~Rule 391-3-5-.18(5) after the initial period need not include Radium-228 except when required by the Director provided, that the average annual concentration of Radium-228 has been assayed at least once using the quarterly sampling procedure required by subparagraph (l)(a) ~~of this Section~~.
5. Suppliers of water shall, as ordered by the Director, conduct annual monitoring of any community water system in which the Radium-228 concentration exceeds 3 pCi/L~~, as ordered by the Director~~.
(d) If the ~~average annual maximum contaminant level~~MCL for gross alpha particle activity or total radium as set forth in ~~paragraph (5) of Section~~Rule 391-3-5-.18(5) is exceeded, the supplier of a community water system shall give notice to the Division pursuant to ~~Section~~Rule 391-3-5-.30 and notify the public pursuant to ~~Section~~Rule 391-3-5-.32. Monitoring at quarterly intervals shall be continued until the annual average concentration no longer exceeds the maximum contaminant level or until a monitoring schedule as a condition to a permit, variance, exemption or enforcement action shall become effective.
(e) The Division may require more frequent monitoring than specified in this section, or may require confirmation samples at its discretion. The results of the initial and confirmation samples will be averaged for use in compliance determinations.
(f) Compliance with Rule 391-3-5-.18(5) will be determined based on the analytical result(s) obtained at each sampling point. If one sampling point is in violation of an MCL, the system is in violation of the MCL. Systems must include all samples taken and analyzed under the provisions of this section in determining compliance, even if that number is greater than the minimum required.
(2) **Monitoring Requirements for Man-made Radioactivity in Community Water Systems.**
(a) Within two years following June 24, 1977 systems using surface water sources and serving more than 100,000 persons and such other community water systems as are designated by the Division shall be monitored for compliance with ~~paragraph (5) of Section~~Rule 391- 3-5-.18(5) by analysis of a composite of four consecutive quarterly samples or analysis of four quarterly samples. Compliance with ~~paragraph (5) of Section~~Rule 391-3-5-.18(5) may be assumed without further analysis if the average annual concentrations of tritium and strontium- 90 are less than those listed in Table A, provided, that in no case shall the sum of their annual dose equivalents to bone marrow exceed 4 milligrams per year.

1. If the gross beta particle activity exceeds 50 pCi/L, an analysis of the sample must be performed to identify the major radioactive constituents present and the appropriate organ and total body doses shall be calculated to determine compliance with ~~paragraph (5) of Section~~Rule 391-3-5-.18(5).

…

(b) After the initial analysis required by subparagraph (2)(a) ~~of this Section~~ suppliers of water shall monitor at least every four years following the procedure given in subparagraph (2)(a) ~~of this Section~~.

(c) Within two years of June 24, 1977 the supplier of any community water system designated by the Division as utilizing waters contaminated by effluents from nuclear facilities shall initiate quarterly monitoring for gross beta particle and iodine-131 radioactivity and annual monitoring for strontium-90 and tritium.

1. Quarterly monitoring for gross beta particle activity shall be based on the analysis of monthly samples or the analysis of a composite of three monthly samples. The former is recommended. If the gross beta particle activity in a sample exceeds 15 pCi/L, the same or an equivalent sample shall be analyzed for strontium-89 and cesium-134. If the gross beta particle activity exceeds 50 pCi/L, an analysis of the sample must be performed to identify the major radioactive constituents present and the appropriate organ and total body doses shall be calculated to determine compliance with ~~paragraph (5) of Section~~Rule 391-3-5-.18(5).

…

(d) If the average annual maximum contaminant level for manmade radioactivity set forth in ~~paragraph (5) of Section~~Rule 391-3-5-.18(5) is exceeded, the operator of a community water system shall give notice to the Division pursuant to ~~Section~~Rule 391-3-5-.30 and to the public as required by ~~Section~~Rule 391-3-5-.32. Monitoring at monthly intervals shall be continued until the concentration no longer exceeds the maximum contaminant level or until a monitoring schedule as a condition to a permit, variance, exemption or enforcement action shall become effective.

(3) **Sample Collection and Analysis.** Upon written direction of the Director, the supplier shall collect and submit drinking water samples for analysis in accordance with the schedule furnished. The Division shall have the discretion to delete results of obvious sampling or analytic errors. CWSs must conduct more frequent monitoring when ordered by the State in the event of possible contamination or when changes in the distribution system or treatment processes occur which may increase the concentration of radioactivity in finished water.

(4) **Analytical Methods.** Analytical methods for measurements, detection limits and determining compliance with maximum contaminant levels listed in Rule 391-3-5-.18 for ~~of~~ radioactivity shall be in accordance with 40 CFR, Part 141.25.

(5) **Monitoring Requirements Effective December 7, 2003.** All existing community water systems (CWSs) must conduct initial monitoring to determine compliance with this ~~section~~rule between December 7, 2003 and December 31, 2007. CWSs must sample each entry point to the distribution system for four consecutive quarters. All existing CWSs using ground water, surface water or systems using both ground and surface water systems must sample at every entry point to the distribution system that is representative of all sources being used under normal operating conditions. The system must take each sample at the same sampling point unless conditions make another sampling point more representative of each source or the Division has designated a distribution system location, in accordance with 40 CFR §141.26(a)(2)(ii)(C).

…

(9) **Reduced Monitoring.** The Division may allow community water systems to reduce the future frequency of monitoring from once every three years to once every six or nine years at each sampling point, based on the following criteria:

…

(11) **Gross Alpha Particle Activity.** A gross alpha particle activity measurement may be substituted for the required radium-226 measurement provided that the measured gross alpha particle activity does not exceed 5 pCi/L. A gross alpha particle activity measurement may be substituted for the required uranium measurement provided that the measured gross alpha particle activity does not exceed 15 pCi/L. The gross alpha measurement shall have a confidence interval of 95% (1.65σ, where σ is the standard deviation of the net counting rate of the sample) for radium-226 and uranium. When a system uses a gross alpha particle activity measurement in lieu of a radium-226 and/or uranium measurement, the gross alpha particle activity analytical result will be used to determine the future monitoring frequency for radium-226 and/or uranium. If the gross alpha particle activity result is less than detection, the detection limit will be used to determine compliance and the future monitoring frequency.

(12) **Monitoring and Compliance Requirements for Beta Particle and Photon Radioactivity.** To determine compliance with the maximum contaminant levels in 40 CFR Sec. 141.66(d) for beta particle and photon radioactivity, a system must monitor at a frequency as follows:

(a) Community water systems (both surface and ground water) designated by the Division as vulnerable must sample for beta particle and photon radioactivity. Systems must collect quarterly samples for both beta emitters and annual samples for tritium and strontium-90 at each entry point to the distribution system (hereafter called a sampling point), beginning within one quarter after being notified by the Division. Systems already designated by the Division must continue to sample until the Division reviews and either reaffirms or removes the designation.

1. If 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 Division may reduce the frequency of monitoring at that sampling point to once every 3 years. Systems must collect all samples required in paragraph 12(a)~~(b)(1) of this section~~ during the reduced monitoring period.

2. For systems in the vicinity of a nuclear facility, the Division may allow the CWS to utilize environmental surveillance data collected by the nuclear facility in lieu of monitoring at the system's entry point(s), where the Division determines if such data is applicable to a particular water system. In the event that there is a release from a nuclear facility, systems which are using surveillance data must begin monitoring at the community water system's entry point(s) in accordance with paragraph 12(a)~~(b)(1) of this section~~.

(b) Community water systems (both surface and ground water) designated by the Division as utilizing waters contaminated by effluents from nuclear facilities must sample for beta particle and photon radioactivity. Systems must collect quarterly samples for beta emitters and iodine-131 and annual samples for tritium and strontium-90 at each entry point to the distribution system (hereafter called a sampling point), beginning within one quarter after being notified by the Division. Systems already designated by the Division as systems using waters contaminated by effluents from nuclear facilities must continue to sample until the Division reviews and either reaffirms or removes the designation.

…

4. If the gross beta particle activity beta 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 15 pCi/L, the Division may reduce the frequency of monitoring at that sampling point to every 3 years. Systems must collect ~~all~~ the same type of samples required in paragraph 12(b)~~(2) of this section~~ during the reduced monitoring period.
5. For systems in the vicinity of a nuclear facility, the Division may allow the CWS to utilize environmental surveillance data collected by the nuclear facility in lieu of monitoring at the system's entry point(s), where the Division determines if such data is applicable to a particular water system. In the event that there is a release from a nuclear facility, systems which are using surveillance data must begin monitoring at the community water system's entry point(s) in accordance with paragraph 12(b)~~(2) of this section~~.
(c) Community water systems designated by the Division to monitor for beta particle activity and photon radioactivity cannot apply to the Division for a waiver from the monitoring frequencies specified in paragraphs 12(a)~~(b)(1)~~ or 12(b)~~(2) of this section~~.
…
(e) If the gross beta particle activity minus the naturally occurring potassium-40 beta particle activity exceeds the screening level, an analysis of the sample must be performed to identify the major radioactive constituents present in the sample and the appropriate doses must be calculated and summed to determine compliance with 40 CFR Sec. 141.66(d)(1), using the formula in 40 CFR Sec. 141.66(d)(2). Doses must also be calculated and combined for measured levels of tritium and strontium to determine compliance.
(13) **Monthly Sampling.** Systems must monitor monthly at the sampling point(s) which exceed the maximum contaminant level in 40 CFR Sec. 141.66(d) beginning the month after the exceedance occurs. Systems must continue monthly monitoring until the system has established, by a rolling average of 3 monthly samples, that the MCL is being met. Systems who establish that the MCL is being met must return to quarterly monitoring until they meet the requirements set forth in paragraphs (12)(a)~~(b)~~(1)~~(ii)~~ or 12(b)(4)~~(2)(i) of this section~~.
…
(20) **Best available technology.** 40 CFR Parts 141.66(g) and 141.66(h) are incorporated by reference.

391-3-5-.29 Certified Laboratories~~. Amended.~~

NOTE: draft amendments to paragraph (1) are excerpted below

(1) **Laboratories Approved by the Division.** For the purpose of determining compliance with Rules 391-3-5-.18, .19, .20, .21, .22, .23, .24, .25, .26, .27, .28, .52, .53~~ and~~, .54 and .55, samples may be considered only if they have been analyzed by a laboratory approved by the Division or by EPA, in accordance with 40 CFR~~,~~ Part 141.28, except that measurements ~~used solely for operational control, including but not limited to~~for turbidity, ~~free chlorine~~disinfectant residual, fluoride residual, temperature, pH, conductivity, calcium, alkalinity, orthophosphate, and silica may be performed by any person acceptable to the Division. Fluoride analysis for determining compliance with MCL must be conducted by a laboratory approved by the Division or by EPA.
…

Rule 391-3-5-.30 Reporting Requirements

NOTE: draft amendments to paragraphs (6) and (7), and a new draft paragraph (16), are excerpted below

…
(6) ~~**Waterborne Disease Outbreak.**~~**Failure to Comply with National Primary Drinking Water Regulation**. Each system, upon discovering that ~~a waterborne disease outbreak potentially attributable to that water system~~an exceedance of any National Primary Drinking Water Regulation has occurred, must report that occurrence to the Division by telephone within forty-eight (48) hours or before the end of the next business day, whichever is earlier, followed by a written report, except where a different reporting period is specified in federal regulations.
(7) **Lead and Copper Information**. All water systems shall report all lead and copper information in accordance with 40 CFR~~,~~ Part 141.90 when applicable. Separate reports are required for each of the following:
…
(16) **Waterborne Disease Outbreak**. Each system, upon discovering that a waterborne disease outbreak potentially attributable to that water system has occurred, must report that occurrence to the Division by telephone within forty-eight (48) hours or before the end of the next business day, whichever is earlier, followed by a written report.

391-3-5-.32 Public Notification~~. Amended.~~

(1) **Public Notification ~~of Drinking Water Violations~~ Requirements.** 40 CFR, Subpart Q §§ 141.201 through 141.210, including Appendices A, B and C to subpart Q of Part 141, is hereby incorporated by reference. Any amendments to any part of the appendices in 40 CFR, Subpart Q are hereby incorporated by reference. If a community or non-community water system fails to comply with an applicable primary maximum contaminant level or maximum residual disinfectant level established in ~~Section~~Rule 391-3-5-.18; fails to comply when applicable with the secondary maximum contaminant level for fluoride established in ~~Section~~Rule 391-3-5-.19; fails to comply with an applicable testing procedure established in ~~Sections~~Rules 391-3-5-.20, .21, .22, .23, .24, .25, ~~or~~ .27, .52, .53, .54, or .55; is granted a variance or an exemption from an applicable maximum contaminant level; fails to comply with the requirements of any schedule prescribed pursuant to a variance or exemption; or fails to comply with any treatment technique requirement specified by the Director; or fails to perform any monitoring or reporting required pursuant to ~~Sections~~Rules 391-3-5-.20, .21, .22, .23, .24, .25, .26, .27, ~~and~~ .30, .52, .53, .54, and .55; the supplier of water shall notify persons (including the mandatory health effects language) served by the system as required in 40 CFR, Part~~s~~ 141, Subpart Q~~, 142.16(a)~~. Other situations that require public notification include: occurrence of waterborne disease outbreak or other waterborne emergency; availability of unregulated contaminant monitoring data; detection of *E.Coli* in source water samples collected under Rule 391-3-5-.54(3); exceedance of the nitrate MCL by non-community water systems, where granted permission by the Division in accordance with Rule 391-3-5-.18(1)(b); and other situations not already listed and determined by EPD to require a public notice. The public water system, within ten (10) days of completing the public notification requirements under 40 CFR, Part~~s~~ 141, Subpart Q for the initial public notice and any repeat notices, must submit to the Division a certification that it has fully complied with the public notification regulations.

The public water system must include with this certification a representative copy of each type of notice distributed, published, posted, and made available to the persons served by the system and to the media.

(2) **Public Notification of Lead Contamination.** The owner or operator of each community water system and each non-transient, non-community water system shall issue notice, in accordance with 40 CFR, Part 141.34, to persons served by the system that may be affected by lead contamination of their drinking water. The owner or operator shall provide notice under this ~~Section~~rule even if there is no violation of the national primary drinking water regulation for lead.

~~(3) **Public Notification of Unregulated Organic Chemical Monitoring.** The owner or operator of a community water system or non-transient, non-community water system who is required to monitor for unregulated organic chemicals in accordance with Section 391-3-5-.26 shall notify persons served by the system of the availability of the results of sampling in accordance with 40 CFR, Part 141.35.~~

~~(4) **Public Notification for Acute Health Risk MCL Violations.** For violations of the MCL of contaminants and MRDLs of disinfectants that may pose an acute risk to human health, a copy of the notice shall be furnished to radio and television stations serving the area served by the public water system as soon as possible but in no case later than seventy-two (72) hours after the violation.~~

~~(a) For violations of the MCL for total coliform, when fecal coliform or *E. coli* is detected or a failure to test for fecal coliform or *E. coli*, including *E. coli* in source water samples based on § 141.202(a) Table 1(8) and MRDs of disinfectants that may pose acute risk to human health, a copy of the notice shall be furnished to radio and television stations serving the area served by the public water system as soon as possible but in no case later than 24 hours after the violation.~~

~~(b) For violations of the MCL for total coliform, MRDs and treatment technique requirements taking in account potential health effects a copy of the notice must be provided by a daily or weekly newspaper as soon as possible but in no case later than 30 days of the violation as stated in § 141.203(a)(4). A copy must also be issued by direct mail, posting, or hand delivery as soon as possible but in no case later than 30 days of the violation.~~

~~(c) Tier 1 public notice in lieu of Tier 2 or Tier 3 is required for violations or situations listed in Table 1 of 40 CFR 141.202(a)(5), (6), and (9) are hereby incorporated by reference.~~

~~1. Violation of the turbidity MCL under § 141.13(b), where the primacy agency determines after consultation that a Tier 1 notice is required or where consultation does not take place within 24 hours after the system learns of the violation;~~

~~2. Violation of the Surface Water Treatment Rule (SWTR), Interim Enhanced Surface Water Treatment Rule (IESWTR) or Long Term 1 Enhanced Surface Water Treatment Rule (LT1SWTR) treatment technique requirement resulting from a single exceedance of the maximum allowable turbidity limit.~~

~~3. 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 primacy agency either in its regulations or on a case-by-case basis.~~

(~~5~~3) **Provide Notice Prior to New Service.** The owner or operator of a community or non-community water system must ~~give~~deliver a copy of the most recent public notice for any outstanding violation of any maximum contaminant level, ~~or~~ any maximum residual disinfectant level, ~~or~~ any treatment technique requirement, any monitoring or reporting requirement, ~~or~~ any variance or exemption schedule and other situations requiring public notice to all new ~~billing units or new hookups~~consumers at the time service begins. The owner or operator of a non-community water system shall continuously post such public notice in conspicuous locations to inform new

consumers for as long as the situation persists.

(~~6~~4) **Cryptosporidium Public Notice.** Special public notice for repeated failure to conduct monitoring of the source water for *Cryptosporidium* and for failure to determine bin classification or mean *Cryptosporidium* level: 40 CFR, Subpart Q § 141.211, in its entirety, including Appendix A, is hereby incorporated by reference. The specified mandatory language must be included in the special notice.

(~~7~~5) **Non-Applicability.** Any reference to public notification requirements in 40 CFR 141.32 is not applicable.

391-3-5-.33 Variances and Exemptions~~.~~

NOTE: draft amendments to paragraph (3) are excerpted below

…

(3) ~~EPA~~The Division has stayed the effective date relating to the total coliform MCL of Rule 391-3-5-.18(4)(a) for systems that demonstrate to the Division 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. This is stayed until March 31, 2016, at which time the total coliform MCL is no longer effective.

Rule 391-3-5-.38 ~~Effective Date~~Reserved

~~These rules shall become effective on July 26, 1977. Amendments shall become effective as provided by law.~~

~~Authority: Ga. L. 1977, p. 351, *et seq*., O.C.G.A. Sec. 12-5-170 *et seq*., as amended.~~

391-3-5-.52 Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)~~.~~

NOTE: draft amendments to portions of paragraphs (3), (16) and (17), a new draft paragraph (18), and proposed renumbering of paragraphs (19)-(23) are excerpted below

…

(3) **Enhanced Treatment for *Cryptosporidium*~~ Subpart W~~.**

(a) General requirements. The requirements of ~~this~~ 40 CFR Part 141 Subpart W are national primary drinking water regulations. The regulations in this subpart establish or extend treatment technique requirements in lieu of maximum contaminant levels for *Cryptosporidium.* These requirements are in addition to requirements for filtration and disinfection in ~~s~~Subparts H, P, and T of ~~this part~~40 CFR Part 141.

(b) Applicability. The requirements of ~~this~~ 40 CFR Part 141 S~~s~~ubpart W apply to all ~~subpart H systems, which are~~ public water systems supplied by a surface water source and public water systems supplied by a ground water source under the direct influence of surface water.
1. Wholesale systems, as defined in 40 CFR § 141.2, must comply with the requirements of ~~this~~ 40 CFR Part 141 S~~s~~ubpart W based on the population of the largest system in the combined distribution system.
2. The requirements of ~~this~~ 40 CFR Part 141 S~~s~~ubpart W for filtered systems apply to systems required by National Primary Drinking Water Regulations to provide filtration treatment, whether or not the system is currently operating a filtration system.
3. The requirements of ~~this~~ 40 CFR Part 141 S~~s~~ubpart W for unfiltered systems apply only to unfiltered systems that timely met and continue to meet the filtration avoidance criteria in ~~s~~Subparts H, P, and T of ~~this part~~40 CFR Part 141, as applicable.
(c) Requirements. Systems subject to ~~this~~ 40 CFR Part 141 S~~s~~ubpart W must comply with the following requirements:
…
(16) **Schedule for Compliance with *Cryptosporidium* Treatment Requirements.**
(a) Following initial bin classification under 40 CFR § 141.710(c), filtered systems must provide the level of treatment for *Cryptosporidium* required under 40 CFR § 141.711 according to the schedule in paragraph (16)(c) ~~of this section~~.
(b) Following initial determination of the mean *Cryptosporidium* level under 40 CFR § 141.712(a)(1), unfiltered systems must provide the level of treatment for *Cryptosporidium* required under 40 CFR § 141.712 according to the schedule in paragraph (16)(c) ~~of this section~~.
…
(17) **Requirements for Uncovered Finished Water Storage Facilities.** All finished water storage facilities must be provided with a permanent cover, in accordance with ~~Section~~Rule 391-3-5-.11 ~~of the rules~~. In order to provide regulatory information on the requirements for uncovered finished water storage facilities, 40 CFR, Subpart W § 141.714(a) through (d) is hereby incorporated by reference.
(18) Microbial ~~t~~Toolbox ~~o~~Options for ~~m~~Meeting *Cryptosporidium* ~~t~~Treatment ~~r~~Requirements. 40 CFR, Subpart W § 141.715(a) through (b) is hereby incorporated by reference.
…
(1~~9~~8) **Reporting Requirements.** 40 CFR, Subpart W § 141.721(a) through (f) is hereby incorporated by reference.
(~~19~~20) **Recordkeeping Requirements.** 40 CFR, Subpart W § 141.722(a) through (c) is hereby incorporated by reference.
(21~~0~~) **Requirements to Respond to Significant Deficiencies Identified in Sanitary Surveys Performed by EPA or Division.** 40 CFR, Subpart W § 141.723(a) through (d) is hereby incorporated by reference. Systems must respond in writing to significant deficiencies identified in sanitary survey reports no later than forty-five (45) days after receipt of the report, indicating how and on what schedule the system will address significant deficiencies noted in the survey. Systems must correct significant deficiencies identified in sanitary survey reports according to the approved schedule, or if there is no approved schedule, according to the schedule submitted by the system if such deficiencies are within the control of the system.
(22~~1~~) **Division Recordkeeping.** The records kept by the Division shall be in accordance with 40 CFR § 142.14.

(232) **Division Reporting.** The reporting by the Division shall be performed as required by 40 CFR § 142.15.

391-3-5-.53 Stage 2 Disinfection Byproducts Rule (Stage 2 DBPR)

NOTE: draft amendments to portions of paragraphs (1)-(3) and (7) are excerpted below

Purpose. The Stage 2 Disinfection Byproducts Rule (DBPR) (40 CFR, Subpart V § 141) builds on existing regulations by requiring water systems to meet disinfection byproduct (DBP) maximum contaminant levels (MCLs) at each monitoring site in the distribution system to better protect public health. The Stage 2 DBPR includes a provision requiring all community water systems (CWS) and only non-transient non-community water systems (NTNCWS) serving more than 10,000 people to conduct an initial distribution system evaluation (IDSE) (40 CFR, Subpart U § 141). NTNCWS serving less than 10,000 are exempted from IDSE requirements, but will need to comply with the Stage 2 DBPR compliance monitoring requirements. The goal of the IDSE is to characterize the distribution system and identify monitoring sites where customers may be exposed to high levels of total trihalomethanes (TTHM) and haloacetic acids (HAA5).

(1) **Initial Distribution System Evaluations~~ – Subpart U~~.**

(a) General requirements~~.~~:. The requirements of 40 CFR Part 141 Subpart U ~~of this part 141~~ constitute national primary drinking water regulations. The regulations in ~~this~~40 CFR Part 141 Subpart U establish monitoring and other requirements for identifying 40 CFR Part 141 Subpart V compliance monitoring locations for determining compliance with maximum contaminant levels for total trihalomethanes (TTHM) and haloacetic acids (five) (HAA5). ~~You~~A system must use an Initial Distribution System Evaluation (IDSE) to determine locations with representative high TTHM and HAA5 concentrations throughout ~~your~~its distribution system. IDSEs are used in conjunction with, but separate from, ~~Subpart L~~ compliance monitoring per 40 CFR Part 141 Subpart L, to identify and select ~~Subpart V~~ compliance monitoring locations per 40 CFR Part 141 Subpart V.

(b) Applicability~~.~~:: Public water systems are subject to these requirements if the water system is a community water system that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light; or if the water system is a non-transient non-community water system that serves at least 10,000 people and uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light.

(c) Schedule~~.~~:: 40 CFR Subpart U § 141.600(c), in its entirety, is hereby incorporated by reference. Systems required to comply with Initial Distribution System Evaluations – Subpart U, must comply with the schedule specified in the table 40 CFR § 141.600(c)(1). A wholesale system or a consecutive system must comply with the specified schedule at the same time as the system with the earliest compliance date in the combined distribution system.

(d) 40 CFR Subpart U § 141.600(d) through (f), in its entirety, is hereby incorporated by reference.

(e) Standard Monitoring~~.~~:: 40 CFR Subpart U § 141.601 is hereby incorporated by reference.

1. Standard monitoring plan~~.~~:: 40 CFR Subpart U § 141.601(a) through (c), in its entirety, is hereby incorporated by reference.

2. System specific studies~~.~~:: 40 CFR Subpart U § 141.602(a) through (b), in its entirety, is hereby incorporated by reference.

3. 40/30 Certification~~.~~: 40 CFR Subpart U § 141.603(a) through (b), in its entirety, is hereby incorporated by reference.
4. Very small system waivers~~.~~: 40 CFR Subpart U § 141.604(a) through (b), in its entirety, is hereby incorporated by reference.
(f) 40 CFR Part 141 Subpart V C~~c~~ompliance M~~m~~onitoring L~~l~~ocation R~~r~~ecommendations~~.~~: 40 CFR Subpart U § 141.605(a) through (e), in its entirety, is hereby incorporated by reference. Water system's IDSE report must include the recommendations and justification for where and during what month(s) TTHM and HAA5 monitoring for Subpart V of part 141 should be conducted. Water system must base its recommendations on the criteria in paragraphs (b) through (e) of this section.
(2) **Stage 2 Disinfection Byproducts Requirements ~~– Subpart V~~.**
(a) General R~~r~~equirements~~.~~: The requirements of 40 CFR Part 141 Subpart V ~~of this part~~ constitute national primary drinking water regulations. The regulations ~~in this Subpart~~ establish monitoring and other requirements for achieving compliance with maximum contaminant levels based on locational running annual averages (LRAA) for total trihalomethanes (TTHM) and haloacetic acids (five) (HAA5), and for achieving compliance with maximum residual disinfectant residuals for chlorine and chloramine for certain consecutive systems.
(b) Applicability~~.~~: Public water systems are subject to these requirements if the system is a community water system or a non-transient non-community water system that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light.
(c) Schedule~~.~~: 40 CFR Subpart V § 141.620(c), in its entirety, is hereby incorporated by reference. Systems required to comply with Stage 2 Disinfection Byproducts Requirements – Subpart V, must comply with the schedule specified in the table 40 CFR § 141.620(c). A wholesale system or a consecutive system must comply with the specified schedule at the same time as the system with the earliest compliance date in the combined distribution system.
...
(e) Monitoring and C~~c~~ompliance.
1. Systems required to monitor quarterly. To comply with Subpart V MCLs in 40 CFR § 141.64(b)(2), water systems must calculate LRAAs for TTHM and HAA5 using monitoring results collected under this Subpart and determine that each LRAA does not exceed the MCL. If a water system fails to complete four consecutive quarters of monitoring, ~~you~~it must calculate compliance with the MCL based on the average of the available data from the most recent four quarters. If ~~you~~a water system takes more than one sample per quarter at a monitoring location, ~~you~~it must average all samples taken in the quarter at that location to determine ~~a~~the quarterly average to be used in the LRAA calculation.
2. Systems required to monitor yearly or less frequently. To determine compliance with Subpart V MCLs in 40 CFR § 141.64(b)(2), water systems must determine that each sample taken is less than the MCL. If any sample exceeds the MCL, ~~it~~the water system must comply with the requirements of 40 CFR § 141.625. If no sample exceeds the MCL, the sample result for each monitoring location is considered the LRAA for that monitoring location.
(f) Violations~~.~~: A w~~W~~ater system is in violation of the monitoring requirements for each quarter that a monitoring result would be used in calculating an LRAA if it fails to monitor.
(g) Routine M~~m~~onitoring~~.~~: If a water system submitted an IDSE report, it must begin monitoring at the locations and months it has recommended in its IDSE report submitted under 40 CFR § 141.605 following the schedule in 40 CFR § 141.620(c), unless the Division requires other

locations or additional locations after its review. If a water system submitted a 40/30 certification under 40 CFR § 141.603 or it qualified for a very small system waiver under 40 CFR § 141.604 or it is a non-transient non-community water system serving less than 10,000, it must monitor at the location(s) and dates identified in its monitoring plan in 40 CFR § 141.132(f), updated as required by 40 CFR § 141.622.

(h) Water systems must monitor at no fewer than the number of locations identified in this paragraph:

…

(i) If a water system is an undisinfected system that begins using a disinfectant other than UV light after the dates in 40 CFR Part 141 Subpart U ~~of this part~~ for complying with the Initial Distribution System Evaluation requirements, it must consult with the Division to identify compliance monitoring locations for ~~this~~ 40 CFR Part 141 Subpart V. The water system must then develop a monitoring plan under 40 CFR § 141.622 that includes those monitoring locations.

(j) Analytical M~~m~~ethods~~.~~: The water system must use an approved method listed in 40 CFR § 141.131, as stated in ~~Section~~Rule 391-3-5-.24(4)(g) ~~of the Rules,~~ for TTHM and HAA5 analyses. Analyses must be conducted by laboratories that have received certification by EPA or the Division.

(3) **Monitoring Plans for Stage 2 Disinfection Byproducts Requirements ~~Subpart V~~.**

(a) Water systems must develop and implement a monitoring plan to be kept on file for Division and public review. The monitoring plan must contain the following elements and be complete no later than the date it conducts its initial monitoring under ~~this~~ 40 CFR Part 141 Subpart V.

1. Monitoring locations;
2. Monitoring dates;
3. Compliance calculation procedures; and
4. Monitoring plans for any other systems in the combined distribution system ~~if the Division has reduced monitoring requirements under its authority~~.

(b) If a water system was not required to submit an IDSE report under either 40 CFR § 141.601 or § 141.602, and it does not have sufficient 40 CFR Part 141 Subpart L (Stage 1 DBPR) monitoring locations to identify the required number of 40 CFR Part 141 Subpart V (Stage 2 DBPR) compliance monitoring locations indicated in 40 CFR § 141.605(b), it must identify additional locations by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of compliance monitoring locations have been identified. It must also provide the rationale for identifying the locations as having high levels of TTHM or HAA5. If it has more Subpart L monitoring locations than required for Subpart V compliance monitoring in 40 CFR § 141.605(b), it must identify which locations it will use for Subpart V compliance monitoring by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of Subpart V compliance monitoring locations have been identified.

…

(7) **Operational Evaluation Levels.**

(a) The water system has exceeded the operational evaluation level at any monitoring location where the sum of the two previous quarters' TTHM results plus twice the current quarter's TTHM result, divided by 4 to determine an average, exceeds 0.080 mg/L, or where the sum of the two previous quarters' HAA5 results plus twice the current quarter's HAA5 result, divided by 4 to determine an average, exceeds 0.060 mg/L.

1. If a water system exceeds the operational evaluation level, it must conduct an operational

evaluation and submit a written report of the evaluation to the Division no later than 90 days after being notified of the analytical result that causes it to exceed the operational evaluation level. The written report must be made available to the public upon request.
2. The operational evaluation must include an examination of system treatment and distribution operational practices, including storage tank operations, excess storage capacity, distribution system flushing, changes in sources or source water quality, and treatment changes or problems that may contribute to TTHM and HAA5 formation and what steps could be considered to minimize future exceedences.
(i) The water system may request and the Division may allow ~~you to~~ limiting the scope of ~~its~~the water system's evaluation if it is able to identify the cause of the operational evaluation level exceedance.
(ii) The water system's request to limit the scope of the evaluation does not extend the schedule in paragraph (7)(~~b~~a)1.~~ of this section~~ for submitting the written report. The Division must approve this limited scope of evaluation in writing and the water system must keep that approval with the completed report.
…

391-3-5-.54 Ground Water Rule~~.~~

NOTE: draft amendments to portions of paragraphs (3)-(6) are excerpted below

…
(3) **Ground Water Source Microbial Monitoring and Analytical Methods.** 40 CFR Part 141, Subpart S §141.402 is hereby incorporated by reference with the exceptions that the Division only allows E. Coli as a fecal indicator for compliance under this rule and the Division does not allow triggered source water samples collected under paragraph (3)(a) to also serve as repeat samples collected under Rule 391-3-5-.55(8)(a).
(a) Triggered source water monitoring.
1. *General requirements*. A ground water system must conduct triggered source water monitoring in accordance with 40 CFR § 141.402(a) if the conditions identified in paragraphs (3)(a)1.(i) and either (3)(a)1.(ii) or (3)(a)1.(iii) exist.
(i) The system does not provide at least 4-log treatment of viruses (using inactivation, removal, or a Division-approved combination of 4-log virus inactivation and removal) before or at the first customer for each ground water source; and either
(ii) The system is notified that a sample collected under ~~§141.21(a)~~Rule 391-3-5-.23(1) is total coliform-positive and the sample is not invalidated under ~~§141.21(c)~~Rule 391-3-5-.23(3) until March 31, 2016, or
(iii) The system is notified that a sample collected under Rule 391-3-5-.55(4) through (7) is total coliform-positive and the sample is not invalidated under Rule 391-3-5-.55(3)(c) beginning April 1, 2016.
2. *Sampling requirements.* A ground water system must collect, within 24 hours of notification of the total coliform-positive sample, at least one ground water source sample from each ground water source in use at the time the total coliform-positive sample was collected under ~~§141.21(a)~~Rule 391-3-5-.23(1) until March 31, 2016, or collected under Rule 391-3-5-.55(4) through (7) beginning April 1, 2016, except as provided in paragraph (3)(a)2.(ii).

(i) The Division may extend the 24-hour time limit on a case-by-case basis if the system cannot collect the ground water source water sample within 24 hours due to circumstances beyond its control. In the case of an extension, the Division must specify how much time the system has to collect the sample.
(ii) If approved by the Division, systems with more than one ground water source may meet the requirements of paragraph (3)(a)2. by sampling a representative ground water source or sources. If directed by the Division, systems must submit for Division approval a triggered source water monitoring plan that identifies one or more ground water sources that are representative of each monitoring site in the system's sample siting plan under ~~§141.21(a)~~Rule 391-3-5-.23(1) until March 31, 2016, or under Rule 391-3-5-.55(3) beginning April 1, 2016, and that the system intends to use for representative sampling under this paragraph.
3. *Additional requirements.* If the Division does not require corrective action under paragraph (4)(a)2~~§141.403(a)(2)~~ for an *E. coli* positive source water sample collected under paragraph (3)(a)2. that is not invalidated under paragraph (3)(d), the system must collect five additional source water samples from the same source within 24 hours of being notified of the *E. coli*-positive sample.
4. *Consecutive and wholesale systems.*
(i) In addition to the other requirements of paragraph (3)(a), a consecutive ground water system that has a total coliform-positive sample collected under ~~§141.21(a)~~Rule 391-3-5-.23(1) until March 31, 2016, or under Rule 391-3-5-.55(4) through (7) beginning April 1, 2016, must notify the wholesale system(s) within 24 hours of being notified of the total coliform-positive sample.
(ii) In addition to the other requirements of paragraph (3)(a), a wholesale ground water system must comply with paragraphs (3)(a)4.(ii)(I) and (3)(a)4.(ii)(II).
(I) A wholesale ground water system that receives notice from a consecutive system it serves that a sample collected under ~~§141.21(a)~~Rule 391-3-5-.23(1) until March 31, 2016, or collected under Rule 391-3-5-.55(4) through (7) beginning April 1, 2016, is total coliform-positive must, within 24 hours of being notified, collect a sample from its ground water source(s) under paragraph (3)(a)(2) and analyze it for ~~a~~ *E. Coli* under paragraph (3)(c).
(II) If the sample collected under paragraph (3)(a)4.(ii)(I) is *E. Coli*-positive, the wholesale ground water system must notify all consecutive systems served by that ground water source of the *E. Coli* source water positive within 24 hours of being notified of the ground water source sample monitoring result and must meet the requirements of paragraph (3)(a)3.
5. *Exceptions to the triggered source water monitoring requirements.* A ground water system is not required to comply with the source water monitoring requirements of paragraph (3)(a) if either of the following conditions exists:
(i) The Division determines, and documents in writing, that the total coliform-positive sample collected under ~~§141.21(a)~~Rule 391-3-5-.23(1) until March 31, 2016, or under Rule 391-3-5-.55 (4) through (7) beginning April 1, 2016, is caused by a distribution system deficiency; or
(ii) The total coliform-positive sample collected under ~~§141.21(a)~~Rule 391-3-5-.23(1) until March 31, 2016, or under Rule 391-3-5-.55(4) through (7) beginning April 1, 2016, is collected at a location that meets Division criteria for distribution system conditions that will cause total coliform-positive samples.
…
(d) Invalidation of a Fecal Indicator-Positive Ground Water Source Sample.

1. A ground water system may obtain Division invalidation of an *E. coli* -positive ground water source sample collected under paragraph (3)(a) only under the conditions specified in paragraphs (3)(d)1.(i) and (ii).

…

(f) New Sources. If directed by the Division, a ground water system that places a new ground water source into service after November 30, 2009, must conduct assessment source water monitoring under paragraph (3)(b). If directed by the Division, the system must begin monitoring before the ground water source is used to provide water to the public.

(~~f~~g) Public Notification. A ground water system with a ground water source sample collected under 40 CFR §141.402 (a) or (b) that is *E. Coli*-positive and that is not invalidated under 40 CFR §141.402(d), including consecutive systems served by the ground water source, must conduct public notification under 40 CFR §141.202.

(~~g~~h) Monitoring Violations. Failure to meet the requirements of paragraphs (3)(a) through (3)(~~e~~f) is a monitoring violation and requires the ground water system to provide public notification under 40 CFR §141.204.

(4) **Treatment Technique Requirements for Ground Water Systems.** 40 CFR Part 141, Subpart S §141.403 is hereby incorporated by reference.

(a) The treatment technique requirements of this paragraph must be met by ground water systems with significant deficiencies or source water fecal contamination:

…

3. When a significant deficiency is identified at a 40 CFR Part 141 Subpart H public water system that uses both ground water and surface water or ground water under the direct influence of surface water, the system must comply with paragraph (4) except in cases where the Division determines that the significant deficiency is in a portion of the distribution system that is served solely by surface water or ground water under the direct influence of surface water.

4. Unless directed by the Division to implement a specific corrective action, the ground water system must consult with the Division regarding the appropriate corrective action within thirty (30) days of receiving written notice from the Division of a significant deficiency, written notice from a laboratory that a ground water source sample collected under 40 CFR § 141.402(a)(3) was found to be fecal positive, or direction from the Division that a fecal positive collected under 40 CFR § 141.402(a)(2), § 141.402(a)(4), or § 141.402(b) requires corrective action. For purposes of this section, significant deficiencies include, but are not limited to, defects in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the Division determines to be causing, or have the potential for causing, the introduction of contamination into the water delivered to consumers.

5. Within 120 days (or earlier if directed by the Division) of receiving written notification from the Division of a significant deficiency, written notice from a laboratory that a ground water source sample collected under 40 CFR § 141.402(a)(3) was found to be fecal positive, or direction from the Division that a fecal positive collected under 40 CFR § 141.402(a)(2), § 141.402(a)(4), or § 141.402(b) requires corrective action, the ground water system must either:

(i) Have completed corrective action in accordance with a Division approved corrective action plan.

(ii) Be in compliance with a Division approved corrective action plan and schedule subject to the following conditions ~~specified in paragraphs (4)(a) and (4)(b)~~.

…

6. Ground water systems that meet the conditions of paragraphs (4)(a)1. or (4)(a)2. must implement one or more of the following corrective action alternatives:
(i) Correct all significant deficiencies;
(ii) Provide an alternate source of water;
(iii) Eliminate the source of contamination; or
(iv) Provide treatment that reliably achieves at least 4-log treatment of viruses (using inactivation, removal, or a Division-approved combination of both) before or at the first customer for the ground water source.
7. Special Notice to the public of significant deficiencies or source water fecal contamination.
(i) In addition to the applicable public notification requirements of 40 CFR § 141.~~4~~202, a community ground water system that receives notice from the Division of a significant deficiency or notification of a fecal positive ground water source sample that is not invalidated by the Division under 40 CFR § 141.402(d) must inform the public served by the water system under 40 CFR § 141.153(h)(6) of the fecal positive source sample or of any significant deficiency that has not been corrected. The system must continue to inform the public annually until the significant deficiency is corrected or the fecal contamination in the ground water source is determined by the Division to be corrected under paragraph (4)(a)5.
(ii) In addition to the applicable public notification requirements of 40 CFR § 141.~~4~~202, a non-community ground water system that receives notice from the Division of a significant deficiency must inform the public served by the water system in a manner approved by the Division of any significant deficiency that has not been corrected within twelve (12) months of being notified, or earlier if directed by the Division. The system must continue to inform the public annually until the significant deficiency is corrected. The information must include:
…
(b) Compliance Monitoring.
~~1. 40 CFR Part 141, Subpart S, § 141.403(b), § 141.403(c), and § 141.403(d) are hereby incorporated by reference.~~
1~~2~~. A ground water system that is not required to meet the source water monitoring requirements in this Rule because it provides at least 4-log treatment of viruses for any ground water source must notify the Division in writing that it is providing at least 4-log treatment of viruses and begin compliance monitoring in accordance with ~~this Rule~~paragraph (4)(b) by December 1, 2009.
2~~3~~. A ground water system that places a ground water source in service after November 30, 2009, ~~that is not required to meet the source water monitoring requirements in this Rule because it~~ and provides at least 4-log treatment of viruses before or at the first customer ~~for any ground water source~~ is not required to meet the source water monitoring requirements in this Rule. Such system must notify the Division in accordance with 40 CFR § 141.403(b)(2)(i), (b)(2)(ii) and (b)(2)(iii) and conduct compliance monitoring as required under 40 CFR § 141.403(b)(3) within thirty days of placing the source in service.
3~~4~~. If the system subsequently discontinues 4-log treatment of viruses before or at the first customer for a ground water source, the system must conduct ground water source monitoring as required under 40 CFR § 141.402.
5. A ground water system serving greater than 3,300 people that is required to conduct compliance monitoring must continuously monitor the residual disinfectant concentration using analytical methods specified in 40 CFR § 141.74(a)(2) at a location approved by the Division and must record the lowest residual disinfectant concentration each day that water from the ground

water source is served to the public. The ground water system must maintain the Division-determined residual disinfectant concentration every day the ground water system serves water from the ground water source to the public. If there is a failure in the continuous monitoring equipment, the ground water system must conduct grab sampling every four hours until the continuous monitoring equipment is returned to service. The system must resume continuous residual disinfectant monitoring within 14 days.

6. A ground water system serving 3,300 or fewer people that is required to conduct compliance monitoring must monitor the residual disinfectant concentration using analytical methods specified in 40 CFR § 141.74(a)(2) at a location approved by the Division and record the residual disinfectant concentration each day that water from the ground water source is served to the public. The ground water system must maintain the Division-determined residual disinfectant concentration every day the ground water system serves water from the ground water source to the public. The ground water system must take a daily grab sample during the hour of peak flow or at another time specified by the Division. If any daily grab sample measurement falls below the Division-determined residual disinfectant concentration, the ground water system must take follow-up samples every four hours until the residual disinfectant concentration is restored to the Division-determined level. Alternatively, a ground water system that serves 3,300 or fewer people may monitor continuously and meet the requirements of 40 CFR § 141.403(b)(3)(i)(A).

7. Membrane Filtration. A ground water system that uses membrane filtration to meet the requirements of this section must monitor the membrane filtration process in accordance with all Division-specified monitoring requirements and must operate the membrane filtration in accordance with all Division-specified compliance requirements. A ground water system that uses membrane filtration is in compliance with the requirement to achieve at least 4-log removal of viruses when:

(i) The membrane has an absolute molecular weight cut-off (MWCO), or an alternate parameter that describes the exclusion characteristics of the membrane, that can reliably achieve at least 4-log removal of viruses;

(ii) The membrane process is operated in accordance with Division-specified compliance requirements; and

(iii) The integrity of the membrane is intact.

8. Alternative treatment. A ground water system that uses a Division-approved alternative treatment to meet the requirements of this subpart by providing at least 4-logtreatment of viruses (using inactivation, removal, or a Division-approved combination of 4-log virus inactivation and removal) before or at the first customer must:

(i) Monitor the alternative treatment in accordance with all Division-specified monitoring requirements; and

(ii) Operate the alternative treatment in accordance with all compliance requirements that the Division determines to be necessary to achieve at least 4-log treatment of viruses.

9~~7~~. A ground water system may discontinue 4-log treatment of viruses if the Division determines and documents in writing that 4-log treatment of viruses is no longer necessary for that ground water source. A system that discontinues 4-log treatment of viruses is subject to the source water monitoring and analytical methods requirements of 40 CFR Part 141 Subpart S, § 141.402.

10~~8~~. Failure to meet the monitoring requirements of paragraph (4)(b) is a monitoring violation and requires the ground water system to provide public notification under 40 CFR Part 141 Subpart ~~S~~Q, § 141.204~~402~~.

119. A ground water system conducting compliance monitoring under 40 CFR § 141.403(b) must notify the Division any time the system fails to meet any Division-specified requirements including, but not limited to, minimum residual disinfectant concentration, membrane operating criteria or membrane integrity, and alternative treatment operating criteria, if operation in accordance with the criteria or requirements is not restored within four hours. The ground water system must notify the Division as soon as possible, but in no case later than the end of the next business day.

(5) **Treatment Technique Violations for Ground Water Systems.** 40 CFR, Subpart S, § 141.404 is hereby incorporated by reference.

(a) A ground water system with a significant deficiency is in violation of the treatment technique requirement if, within 120 days (or earlier if directed by the Division) of receiving written notice from the Division of the significant deficiency, the system:

1. Does not complete corrective action in accordance with any applicable Division plan review processes including interim actions and measures specified by the Division, or
2. Is not in compliance with a Division approved corrective action plan and schedule.

(b) Unless the Division invalidates a fecal positive ground water source sample under 40 CFR § 141.402(d), a ground water system is in violation of the treatment technique requirement if, within 120 days (or earlier if directed by the Division) of meeting the conditions of 40 CFR § 141.403(a)(1) or § 141.4032(a)(2), the system:

1. Does not complete corrective action in accordance with any applicable Division plan review processes including interim actions and measures specified by the Division, or
2. Is not in compliance with a Division approved corrective action plan and schedule.

(c) A ground water system subject to the requirements of 40 CFR § 141.4032(ab)(23) that fails to maintain at least 4-log treatment of viruses (using inactivation, removal, or a Division-approved combination of boththe two) is in violation of the treatment technique requirement if the failure is not corrected within four hours of determining the system is not maintaining at least 4-log treatment of viruses before or at the first customer.

(d) Ground water systems must give public notification under 40 CFR § 141.203 for the treatment technique violations specified in paragraphs (5)(a), (5)(b) and (5)(c).

(6) **Reporting and Recordkeeping for Ground Water Systems.** 40 CFR Part 141, Subpart S, § 141.405 is hereby incorporated by reference.

…

(b) In addition to the requirements of 40 CFR § 141.33, a ground water system regulated under 40 CFR Part 141 Subpart S must maintain the following information in its records:

1. Documentation of corrective actions. Documentation shall be kept for a period of not less than ten years.
2. Documentation of notice to the public as required under 40 CFR § 141.493403(a)(7). Documentation shall be kept for a period not less than three years.
3. Records of decisions under 40 CFR § 141.402(a)(5)(ii) and records of invalidation of fecal indicator-positive ground water samples under 40 CFR § 141.402(d). Documentation shall be kept for a period of not less than five years.
4. For consecutive systems, documentation of notification to the wholesale system(s) of total coliform-positive samples that are not invalidated under 40 CFR § 141.21(c)Rule 391-3-5-.23(3) until March 31, 2016, or under Rule 391-3-5-.55(3) beginning April 1, 2016. Documentation shall be kept for a period of not less than five years.

…

391-3-5-.55 Revised Total Coliform Rule

NOTE: draft amendments to portions of paragraphs (2)-(4) and (6) are excerpted below

…

(2) **Analytical Methods and Laboratory Certification**

…

(b) *Laboratory certification*. Systems must have all compliance samples required under this Rule analyzed by a laboratory certified by the Division or by EPA to analyze drinking water samples. The laboratory used by the system must be certified for each method (and associated contaminant(s)) used for compliance monitoring analyses under this Rule.

…

(3) **General Monitoring Requirements for all Public Water Systems**

(a) Sample Site Plans.

…

4. A system may conduct more compliance monitoring than is required by this Rule to investigate potential problems in the distribution system and use monitoring as a tool to assist in uncovering problems. A system may take more than the minimum number of required routine samples and must include the results in calculating whether the coliform treatment technique trigger in paragraphs (9)(a)1.(i) and (ii) has been exceeded only if the samples are taken in accordance with the existing sample siting plan and are representative of water throughout the distribution system.

…

(c) *Invalidation of total coliform samples*. A total coliform-positive sample invalidated under this paragraph does not count toward meeting the minimum monitoring requirements of this Rule.

1. The Division may invalidate a total coliform-positive sample only if any of the following conditions are met:

…

(4) **Routine Monitoring Requirements for Non-Community Water Systems Serving 1,000 or Fewer People Using Only Ground Water**

(a) *General*.

1. The provisions of this paragraph (4) apply to non-community water systems using only ground water (except ground water under the direct influence of surface water, as defined in Rule 391-3-5-.02(64)) and serving 1,000 or fewer people.

…

(c) *Transition to ~~40 CFR Part 141 Subpart Y~~Rule 391-3-5-.55*.

1. Systems, ~~in~~excluding seasonal systems, must continue to monitor according to the total coliform monitoring schedules under Rule 391-3-5-.23 that were in effect on March 31, 2016, unless any of the conditions for increased monitoring in paragraph (4)(d) are triggered on or after April 1, 2016, or unless otherwise directed by the Division. Seasonal Systems must comply with paragraph (4)(f) as of April 1, 2016.

…

(d) *Increased monitoring requirements for systems on quarterly monitoring*. A system on quarterly monitoring that experiences any of the events identified in paragraphs (4)(d)1. through (4)(d)4. must begin monthly monitoring the month following the event. The system must continue monthly monitoring until the requirements in paragraph (4)(e) for quarterly monitoring are met. A system on monthly monitoring for reasons other than those identified in paragraphs (4)(d)1. through (4)(d)4. is not considered to be on increased monitoring for the purposes of paragraph (4)(e).

…

4. The system has two monitoring violations under Rule 391-3-5-.55 or one monitoring violation under Rule 391-3-5-.55 and one Level 1 assessment under the provisions of paragraph (9) in a rolling 12-month period ~~for a system on quarterly monitoring~~.

…

(f) *Seasonal systems*.

1. Beginning April 1, 2016, all seasonal systems must demonstrate completion of a Division-approved start-up procedure, which ~~may~~ includes a requirement for startup sampling prior to serving water to the public.

…

(6) Routine Monitoring Requirements for 40 CFR Part 141 Subpart H Public Water Systems Serving 1,000 or Fewer People.

(a) *General*.

1. The provisions of paragraph (6) apply to 40 CFR Part 141 Subpart H public water systems ~~of this part~~ serving 1,000 or fewer people.

…

(b) *Routine monitoring frequency for total coliforms*. 40 CFR Part 141 Subpart H systems (including consecutive systems) must monitor monthly. Systems may not reduce monitoring.

…