VIRGINIA REGISTER OF REGULATIONS

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VIRGINIA REGISTER INFORMATION PAGE

THE VIRGINIA REGISTER OF REGULATIONS is an official state publication issued every other week throughout the year. Indexes are published quarterly, and are cumulative for the year. The *Virginia Register* has several functions. The new and amended sections of regulations, both as proposed and as finally adopted, are required by law to be published in the *Virginia Register*. In addition, the *Virginia Register* is a source of other information about state government, including petitions for rulemaking, emergency regulations, executive orders issued by the Governor, and notices of public hearings on regulations.

ADOPTION, AMENDMENT, AND REPEAL OF REGULATIONS

An agency wishing to adopt, amend, or repeal regulations must first publish in the *Virginia Register* a notice of intended regulatory action; a basis, purpose, substance and issues statement; an economic impact analysis prepared by the Department of Planning and Budget; the agency's response to the economic impact analysis; a summary; a notice giving the public an opportunity to comment on the proposal; and the text of the proposed regulation.

Following publication of the proposal in the Virginia Register, the promulgating agency receives public comments for a minimum of 60 days. The Governor reviews the proposed regulation to determine if it is necessary to protect the public health, safety and welfare, and if it is clearly written and easily understandable. If the Governor chooses to comment on the proposed regulation, his comments must be transmitted to the agency and the Registrar no later than 15 days following the completion of the 60-day public comment period. The Governor's comments, if any, will be published in the *Virginia Register*. Not less than 15 days following the completion of the 60-day public comment period, the agency may adopt the proposed regulation.

The Joint Commission on Administrative Rules (JCAR) or the appropriate standing committee of each house of the General Assembly may meet during the promulgation or final adoption process and file an objection with the Registrar and the promulgating agency. The objection will be published in the *Virginia Register*. Within 21 days after receipt by the agency of a legislative objection, the agency shall file a response with the Registrar, the objecting legislative body, and the Governor.

When final action is taken, the agency again publishes the text of the regulation as adopted, highlighting all changes made to the proposed regulation and explaining any substantial changes made since publication of the proposal. A 30-day final adoption period begins upon final publication in the *Virginia Register*.

The Governor may review the final regulation during this time and, if he objects, forward his objection to the Registrar and the agency. In addition to or in lieu of filing a formal objection, the Governor may suspend the effective date of a portion or all of a regulation until the end of the next regular General Assembly session by issuing a directive signed by a majority of the members of the appropriate legislative body and the Governor. The Governor's objection or suspension of the regulation, or both, will be published in the *Virginia Register*. If the Governor finds that changes made to the proposed regulation have substantial impact, he may require the agency to provide an additional 30-day public comment period on the changes. Notice of the additional public comment period required by the Governor will be published in the *Virginia Register*.

The agency shall suspend the regulatory process for 30 days when it receives requests from 25 or more individuals to solicit additional public comment, unless the agency determines that the changes have minor or inconsequential impact.

A regulation becomes effective at the conclusion of the 30-day final adoption period, or at any other later date specified by the promulgating agency, unless (i) a legislative objection has been filed, in which event the regulation, unless withdrawn, becomes effective on the date specified, which shall be after the expiration of the 21-day objection period; (ii) the Governor exercises his authority to require the agency to provide for additional public comment, in which event the regulation, unless withdrawn, becomes effective on the date specified, which shall be after the expiration of the period for which the Governor has provided for additional public comment; (iii) the Governor and the General Assembly exercise their authority to suspend the effective date of a regulation until the end of the next regular legislative session; or (iv) the agency suspends the regulatory process, in which event the regulation, unless withdrawn, becomes effective on the date specified, which shall be after the expiration of the 30-day public comment period and no earlier than 15 days from publication of the readopted action.

A regulatory action may be withdrawn by the promulgating agency at any time before the regulation becomes final.

FAST-TRACK RULEMAKING PROCESS

Section 2.2-4012.1 of the Code of Virginia provides an exemption from certain provisions of the Administrative Process Act for agency regulations deemed by the Governor to be noncontroversial. To use this process, Governor's concurrence is required and advance notice must be provided to certain legislative committees. Fast-track regulations will become effective on the date noted in the regulatory action if no objections to using the process are filed in accordance with § 2.2-4012.1.

EMERGENCY REGULATIONS

Pursuant to § 2.2-4011 of the Code of Virginia, an agency, upon consultation with the Attorney General, and at the discretion of the Governor, may adopt emergency regulations that are necessitated by an emergency situation. An agency may also adopt an emergency regulation when Virginia statutory law or the appropriation act or federal law or federal regulation requires that a regulation be effective in 280 days or less from its enactment. The emergency regulation becomes operative upon its adoption and filing with the Registrar of Regulations, unless a later date is specified. Emergency regulations are limited to no more than 18 months in duration; however, may be extended for six months under certain circumstances as provided for in § 2.2-4011 D. Emergency regulations are published as soon as possible in the *Register*.

During the time the emergency status is in effect, the agency may proceed with the adoption of permanent regulations through the usual procedures. To begin promulgating the replacement regulation, the agency must (i) file the Notice of Intended Regulatory Action with the Registrar within 60 days of the effective date of the emergency regulation and (ii) file the proposed regulation with the Registrar within 180 days of the effective date of the emergency regulation. If the agency chooses not to adopt the regulations, the emergency status ends when the prescribed time limit expires.

STATEMENT

The foregoing constitutes a generalized statement of the procedures to be followed. For specific statutory language, it is suggested that Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia be examined carefully.

CITATION TO THE *VIRGINIA REGISTER*

The *Virginia Register* is cited by volume, issue, page number, and date. **29:5 VA.R. 1075-1192 November 5, 2012,** refers to Volume 29, Issue 5, pages 1075 through 1192 of the *Virginia Register* issued on November 5, 2012.

The Virginia Register of Regulations is published pursuant to Article 6 (§ 2.2-4031 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia.

Members of the Virginia Code Commission: **John S. Edwards,** Chair; **James M. LeMunyon,** Vice Chair; **Gregory D. Habeeb; Ryan T. McDougle; Robert L. Calhoun; Carlos L. Hopkins; Leslie L. Lilley; E.M. Miller, Jr.; Thomas M. Moncure, Jr.; Christopher R. Nolen; Timothy Oksman; Charles S. Sharp; Mark J. Vucci.**

Staff of the *Virginia Register:* **Jane D. Chaffin,** Registrar of Regulations; **Karen Perrine,** Assistant Registrar; **Anne Bloomsburg,** Regulations Analyst; **Rhonda Dyer,** Publications Assistant; **Terri Edwards,** Operations Staff Assistant.

PUBLICATION SCHEDULE AND DEADLINES

This schedule is available on the *Register*'s Internet home page (http://register.dls.virginia.gov).

October 2016 through November 2017

Volume: Issue	Material Submitted By Noon*	Will Be Published On
33:3	September 14, 2016	October 3, 2016
33:4	September 28, 2016	October 17, 2016
33:5	October 12, 2016	October 31, 2016
33:6	October 26, 2016	November 14, 2016
33:7	November 9, 2016	November 28, 2016
33:8	November 22, 2016 **(Tuesday)**	December 12, 2016
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34:5	October 11, 2017	October 30, 2017
34:6	October 25, 2017	November 13, 2017
34:7	November 8, 2017	November 27, 2017

*Filing deadlines are Wednesdays unless otherwise specified.

TITLE 18. PROFESSIONAL AND OCCUPATIONAL LICENSING

BOARD OF PHARMACY

Agency Decision

Title of Regulation: **18VAC110-20. Regulations Governing the Practice of Pharmacy.**

Statutory Authority: § 54.1-2400 of the Code of Virginia.

Name of Petitioner: Derek Phillips.

Nature of Petitioner's Request: If deemed appropriate by the pharmacist, a patient may receive, upon request, drug quantities in excess of the face amount of a prescription for a Schedule VI substance, up to the total amount authorized.

Agency Decision: Request granted.

Statement of Reason for Decision: At its meeting on September 7, 2016, the board considered the petition and a public comment in support. The board concluded it will issue a Notice of Intended Regulatory Action to consider an amendment to requirements for dispensing to allow dispensing of Schedule VI drugs in excess of the quantity on the prescription within the amount authorized.

Agency Contact: Elaine J. Yeatts, Regulatory Coordinator, Department of Health Professions, 9960 Mayland Drive, Suite 300, Richmond, VA 23233, telephone (804) 367-4688, or email elaine.yeatts@dhp.virginia.gov.

VA.R. Doc. No. R16-27; Filed September 7, 2016, 4:58 p.m.

Agency Decision

Title of Regulation: **18VAC110-20. Regulations Governing the Practice of Pharmacy.**

Statutory Authority: § 54.1-2400 of the Code of Virginia.

Name of Petitioner: Roger St. Clair.

Nature of Petitioner's Request: To authorize use of electronic devices in lieu of manual emergency drug kits and stat-drug boxes to provide for initiating therapy prior to the receipt of ordered drugs from the pharmacy. Current regulation does not designate electronic devices being utilized as unit dose systems purely for first dose nonroutine versus automated dispensing devices utilized for full or routine dispensing in long-term care facilities.

Agency Decision: Request granted.

Statement of Reason for Decision: At its meeting on September 7, 2016, the board considered the petition and a public comment in support. The board concluded it will issue a Notice of Intended Regulatory Action to consider an amendment to the allowance in 18VAC110-20-555, which currently provides: "Drugs that would be stocked in an emergency drug kit pursuant to 18VAC110-20-540 may be accessed prior to receiving electronic authorization from the pharmacist provided that the absence of the drugs would threaten the survival of the patients." Additionally, the board will consider amending the quantity limitations for drugs accessed by an automatic dispensing device.

Agency Contact: Elaine J. Yeatts, Agency Regulatory Coordinator, Department of Health Professions, 9960 Mayland Drive, Richmond, VA 23233, telephone (804) 367-4688, or email elaine.yeatts@dhp.virginia.gov.

VA.R. Doc. No. R16-32; Filed September 7, 2016, 4:58 p.m.

TITLE 6. CRIMINAL JUSTICE AND CORRECTIONS

BOARD OF JUVENILE JUSTICE

Notice of Intended Regulatory Action

Notice is hereby given in accordance with § 2.2-4007.01 of the Code of Virginia that the Board of Juvenile Justice intends to consider amending **6VAC35-71, Regulation Governing Juvenile Correctional Centers**. The purpose of the proposed action is to amend the regulation to reflect new positions, procedures, and requirements as a result of the department's shift to a community treatment model; update the definitions section and terms used for clarity and consistency with other regulations; and incorporate appropriate cross references to statutes, regulations, and guidance documents that have changed since the last review.

The agency does not intend to hold a public hearing on the proposed action after publication in the Virginia Register.

Statutory Authority: § 66-10 of the Code of Virginia.

Public Comment Deadline: November 2, 2016.

Agency Contact: Kristen Peterson, Regulatory Coordinator, Department of Juvenile Justice, P.O. Box 1110, Richmond, VA 23219, telephone (804) 588-3902, FAX (804) 371-6490, or email kristen.peterson@djj.virginia.gov.

VA.R. Doc. No. R17-4810; Filed September 6, 2016, 10:22 a.m.

TITLE 2. AGRICULTURE

BOARD OF AGRICULTURE AND CONSUMER SERVICES

Proposed Regulation

Title of Regulation: **2VAC5-680. Regulations Governing Licensing of Pesticide Businesses Operating under Authority of the Virginia Pesticide Control Act (amending 2VAC5-680-10, 2VAC5-680-20, 2VAC5-680-60, 2VAC5-680-65, 2VAC5-680-70, 2VAC5-680-80).**

Statutory Authority: § 3.2-3906 of the Code of Virginia.

Public Hearing Information:

December 8, 2016 - 10 a.m. - Virginia State Capitol, House Room 3, 1000 Bank Street, Richmond, VA 23219

Public Comment Deadline: December 9, 2016.

Agency Contact: Laura Hare, Policy Analyst, Department of Agriculture and Consumer Services, P.O. Box 1163, Richmond, VA 23218, telephone (804) 786-1908, FAX (804) 255-2666, or email laura.hare@vdacs.virginia.gov.

Basis: Section 3.2-109 of the Code of Virginia establishes the Board of Agriculture and Consumer Services as a policy board with the authority to adopt regulations in accordance with the provisions of Title 3.2 of the Code.

Section 3.2-3906 of the Code of Virginia authorizes the board to adopt regulations, including the licensing of businesses that manufacture, sell, store, recommend for use, mix, or apply pesticides.

Purpose: The format and a large portion of the content of 2VAC5-680, Regulations Governing Licensing of Pesticide Businesses Operating under Authority of the Virginia Pesticide Control Act, were first implemented in January 1991. The regulations were amended in October 2006 and renumbered in October 2012 following the merger of the former Pesticide Control Board with the Board of Agriculture and Consumer Services. Because of the inherent safety considerations associated with the application of pesticides, it is imperative that the requirements for pesticide businesses that manufacture, sell, store, recommend for use, mix, or apply pesticides are clear and unambiguous. The proposed amendments are intended to improve the clarity of the regulations and further promote compliance.

The pesticide industry in the United States is highly regulated and is aware that regulations undergo regular reviews and are updated as necessary to align the regulations with current federal pesticide laws, agency policies and procedures, and industry standards. The agency does not expect industry to have concerns with the proposed amendments.

Substance: Substantive amendments to the regulations are as follows:

1. Amend the definition of "pesticide business location" to reflect the use of technologies when conducting business (e.g., sales, service, etc.), including cell phones, email, and websites.

2. Add the definition of the term "limited household use." Currently, the regulations require that any person or business operating in Virginia that, in exchange for compensation, sells, stores, distributes, mixes, applies, or recommends the use or application of pesticides obtain a valid pesticide business license. An exemption to these requirements exists for "Merchants of limited quantities of nonrestricted use pesticides who sell pesticides primarily intended for limited household use"; however, no definition exists for the term "limited household use."

3. Add the definition of the term "multiple violations." Currently, the regulations provide for the revocation of a business license for "Multiple violations of the Act or regulations pursuant thereto within a three-year period"; however, the term "multiple violations" is not defined.

4. Add the definition of the term "sale or sell." Currently, the regulations are ambiguous as to the meaning of these terms. Because of the inherent safety considerations associated with pesticides, it is imperative that the requirements for pesticide business licensure are as clear and unambiguous as possible.

Issues: The proposed regulatory action is advantageous to private citizens and businesses, as the amendments clarify requirements for pesticide business registration while ensuring continued compliance. The pesticide industry in the United States is highly regulated and is aware that regulations undergo regular reviews and are updated as necessary to align the regulations with current federal pesticide laws, agency policies and procedures, and industry standards. These actions do not add any additional requirements more restrictive than federal requirements to businesses seeking licensure. There are no known disadvantages to the public, businesses, or the Commonwealth. The proposed regulatory action will clarify and streamline requirements and will lead to an increase in compliance through better understanding of applicable requirements.

Small Business Impact Review Report of Findings: This proposed regulatory action serves as the report of the findings

of the regulatory review pursuant to § 2.2-4007.1 of the Code of Virginia.

Department of Planning and Budget's Economic Impact Analysis:

Summary of the Proposed Amendments to Regulation. As the result of a periodic review of the above titled regulation[1], the Board of Agriculture and Consumer Services (Board) proposes amendments to add several definitions and make other clarifying changes.

Result of Analysis. Benefits outweigh costs for all proposed changes.

Estimated Economic Impact. The Board proposes to add several definitions to its regulation for licensing pesticide businesses. The Board also proposes making several changes to regulatory language, such as amending "brand or common product name" to read "brand, trademark or product name appearing on the product label," that will not change what is required of businesses but will make requirements clearer. None of these proposed regulatory changes are likely to increase costs for any regulated entity because they do not change any actual requirements. Both affected businesses and other interested parties, however, will likely benefit from the additional clarity these changes bring to the regulation.

Businesses and Entities Affected. Board staff reports that approximately 3,000 pesticide businesses are licensed under this regulation. All of these entities, as well as other interested parties, will be affected by these proposed changes.

Localities Particularly Affected. No locality will be particularly affected by these proposed regulatory changes.

Projected Impact on Employment. These proposed regulatory changes are unlikely to affect employment in the Commonwealth.

Effects on the Use and Value of Private Property. These proposed changes will likely not affect the use or value of private property in the Commonwealth.

Real Estate Development Costs. These proposed regulatory changes are unlikely to affect real estate development costs in the Commonwealth.

Small Businesses:

Definition. Pursuant to § 2.2-4007.04 of the Code of Virginia, small business is defined as "a business entity, including its affiliates, that (i) is independently owned and operated and (ii) employs fewer than 500 full-time employees or has gross annual sales of less than $6 million."

Costs and Other Effects. No small businesses are likely to incur any additional costs on account of these clarifying changes.

Alternative Method that Minimizes Adverse Impact. No small businesses are likely to incur any additional costs on account of these clarifying changes.

Adverse Impacts:

Businesses. No businesses are likely to incur any additional costs on account of these clarifying changes.

Localities. Localities in the Commonwealth are unlikely to see any adverse impacts on account of these proposed regulatory changes.

Other Entities. No other entities are likely to be adversely affected by these proposed changes.

[1] http://townhall.virginia.gov/l/ViewPReview.cfm?PRid=1332

Agency's Response to Economic Impact Analysis: The agency concurs with the analysis of the Department of Planning and Budget.

Summary:

The proposed amendments align the regulation with current agency practices and federal requirements by (i) adding a definition of the term "distribute" or "distribution" and amending the definition of the term "pesticide business location" to address current industry practices; (ii) adding a definition of the term "limited household use" in order to clarify the requirements for merchants who are exempt from pesticide business licenses under the Virginia Pesticide Control Act; (iii) adding a definition of the term "multiple violations"; (iv) clarifying the current requirements for the application for a pesticide business license; (v) clarifying the current requirement regarding evidence of financial responsibility; and (vi) amending the recordkeeping requirements to be consistent with other pesticide labeling requirements in 2VAC5-670, Rules and Regulations for Enforcement of the Virginia Pesticide Law and this chapter.

Part I
Definitions

2VAC5-680-10. ~~Definition of terms~~ Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise. ~~An asterisk following a definition denotes that the definition has been taken from § 3.2-100 or Article 1 (§ 3.2-3900 et seq.) of Chapter 39 of Title 3.2 of the Code of Virginia.~~

"Board" means the Board of Agriculture and Consumer Services.~~*~~

"Bulk pesticide" means any registered pesticide concentrate ~~which~~ that is transported or held in an individual container in undivided quantities of greater than 55 U.S. gallons liquid measure or greater than 100 pounds net dry weight.

"Certification" or "certified" means the recognition granted by the Board of Agriculture and Consumer Services to an applicator upon satisfactory completion of board approved requirements.~~*~~

"Commercial applicator" means any person who has completed the requirements for certification as determined by

the board to use or supervise the use of any pesticide for any purpose or on any property other than as provided in the definition of private applicator.*

"Commissioner" means the Commissioner of Agriculture and Consumer Services.*

"Department" means the Department of Agriculture and Consumer Services.*

"Distribute" or "distribution" means the act of distributing, selling, offering for sale, holding for sale, shipping, holding for shipment, delivering for shipment or receiving and, having so received, delivering or offering to deliver, or releasing for shipment to any person in any state. The term includes the sale of pesticides to wholesalers, retailers, and other merchants or to industrial, institutional, and commercial businesses for use by the employees of the business.

"EPA" means the ~~United States~~ U.S. Environmental Protection Agency.

"FIFRA" means the Federal Insecticide, Fungicide, and Rodenticide Act as amended, and ~~herein~~ incorporated by reference in this chapter.

"Licensed" or "licensee" means those businesses which, upon meeting the requirements established by the Board of Agriculture and Consumer Services, are issued a license to engage in the sale, storage, distribution, ~~recommend the~~ recommendation for use, or application of pesticides in Virginia in exchange for compensation.*

"Limited household use" means the use of any general use pesticide product in or on a person's own dwelling and associated grounds such as lawn, garden, pool, or outbuildings. The term also means the use of a general use pesticide applied to animals owned as pets or raised for personal use and the use of personal use products such as mosquito repellents.

"Limited quantities" means purchases, at cost, for resale, of less than $50,000 annually per outlet of products containing nonrestricted use pesticide active ingredients.

"Multiple violations" means more than one violation of the Act or regulations pursuant to the Act.

"Pest management consultant" means any person, who may or may not apply pesticides himself, who has obtained a business license in accordance with the requirements listed ~~below~~ in this chapter, and who is authorized by this chapter to provide technical advice, supervision or aid, or recommendations for pesticide application commercially in Virginia.

"Pesticide" means (i) any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, fungi, bacteria, weeds, or other forms of plant or animal life or viruses or bacteria, except viruses on or in living man or other animals, which the commissioner shall declare to be a pest, (ii) any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant, and (iii) any substance which is intended to become an active ingredient in any substance defined in clauses (i) and (ii) of this definition.*

"Pesticide business" means any person engaged in the business of distributing, applying, or recommending the use of a product~~;~~ or storing, selling, or offering for sale pesticides for distribution directly to the user. The term "pesticide business" does not include (i) wood treaters not for hire; (ii) seed treaters not for hire; (iii) operations that produce agricultural products unless the owners or operators of such operations described in clauses (i), (ii), and (iii) of this definition are engaged in the business of selling or offering for sale pesticides, or distributing pesticides to persons outside of that agricultural producing operation in connection with commercial transactions; or (iv) businesses exempted by regulations adopted by the board.*

"Pesticide business location" means any ~~fixed~~ physical location of a pesticide business ~~with either a telephone that is~~ used to transact business ~~or give advice,~~ financial transactions, arrangement of services, or assignment of work or where products, supplies, or business mail is delivered. ~~Residences of service technicians who are employed by a licensed pesticide business are exempt, if no business solicitation is conducted from that location.~~ The term excludes buildings or locations, including employees' residences, used solely for storage of service vehicles, equipment, or supplies or telephone answering services.

"Private applicator" means an applicator who uses or supervises the use of any pesticide which is classified for restricted use for purposes of producing any agricultural commodity on property owned or rented by him or his employer or, if applied without compensation other than trading of personal services between producers of agricultural commodities, on the property of another person.*

"Restricted use pesticide" or "pesticide classified for restricted use" means any pesticide classified as restricted by the Administrator of the ~~United States~~ U.S. Environmental Protection Agency.*

"Sale" or "sell" means the transfer of goods to or to render services to another in exchange for compensation of any kind.

"Virginia Pesticide Control Act" or "Act" means Chapter 39 (§ 3.2-3900 et seq.) of Title 3.2 of the Code of Virginia.

Part II

Procedures for Obtaining a Business License

2VAC5-680-20. General requirements for all pesticide businesses; exemptions.

A. Any person or business ~~operating in Virginia, which~~ that, in exchange for compensation, sells, stores, distributes, mixes, applies, or recommends for use pesticides~~,~~ in Virginia shall obtain a valid pesticide business license pursuant to this chapter. Each pesticide business location shall be licensed.

B. Exempted from the provisions of this chapter are the following:

1. Merchants of limited quantities of nonrestricted use pesticides who sell pesticides primarily intended for limited household use;

2. Federal, state and local governmental agencies;

3. Certified applicators not for hire; including those who use or supervise the use of pesticides as part of their job duties only on property owned or leased by themselves or their employer; and

4. Providers of janitorial, cleaning or sanitizing services if the providers use no pesticides other than sanitizers, disinfectants and germicides.

C. Application for a pesticide business license is made by submitting to the department (i) a completed application form ~~and~~, (ii) a check or money order in the amount of the annual business license fee established by the board, and (iii) evidence of financial responsibility, as required in 2VAC5-680-80.

D. Each applicant for a pesticide business license, or an employee designated by the applicant, shall demonstrate to the commissioner his knowledge of (i) pesticide laws and regulations; (ii) potential hazards of pesticides to man and the environment; and (iii) safe distribution, use, and disposal of pesticides by passing a written examination prior to his being issued a business license. If the applicant is already certified as a commercial applicator, he shall be exempt from the initial examination requirement.

E. All licensed pesticide businesses shall maintain written records pertaining to their operations, as required in this chapter.

F. All licensed pesticide business locations or outlets which sell restricted use pesticides, or distribute restricted use pesticides for purposes of selling, shall have a certified commercial applicator present who shall bear immediate responsibility for the correct and safe operation of the location or outlet. Each business shall notify the department of the name of the commercial applicator assigned to each location or outlet, and shall also notify the department within three business days of any change in the applicator assignments during the license period.

G. All licensed pesticide businesses that store, repack and distribute bulk pesticides shall meet the requirements established by the board for the storage, repackaging and distribution of bulk pesticides.

H. All pesticide business licenses shall expire at midnight on March 3l of each year. Licensees shall renew their licenses annually by application to the department and payment of the annual fee on or before close of business March 31. The department shall charge a 20% penalty in addition to the regular fee for renewal applications filed after March 31.

2VAC5-680-60. Recordkeeping of restricted use pesticide sales by pesticide businesses.

A. Pesticide businesses that sell restricted use pesticides shall maintain a record of each restricted use pesticide sold. Each sales record shall contain the following:

1. Name, address, certified applicator number or business license number, and certificate or license expiration date of the person to whom the restricted use pesticide was sold or delivered;

2. Date of sale;

3. Brand, trademark, or ~~common~~ product name appearing on the product's label;

4. EPA registration number; and

5. Quantity of pesticide sold or delivered.

B. The restricted use pesticide sales recordkeeping requirement may be satisfied by invoices, if (i) such invoices are kept separate from the licensee's other sales records, and (ii) the invoices contain the ~~above~~ information required by subsection A of this section.

2VAC5-680-65. Recordkeeping of pesticide applications by licensed pesticide businesses.

Licensed pesticide businesses shall maintain a record of each pesticide applied. This shall apply to both general use and restricted use pesticides. Each record shall contain the:

1. Name, address, and telephone number of customer and address or location, if different, of site of application;

2. Name and certification number (or certification number of the supervising certified applicator) of the person making the application;

3. Day, month and year of application;

4. Type of plants, crop, animals, or sites treated and principal pests to be controlled;

5. Acreage, area, or number of plants or animals treated;

6. Brand ~~name~~, trademark, or ~~common~~ product name appearing on the product's label;

7. EPA registration number;

8. Amount of pesticide concentrate and amount of diluent used, by weight or volume, in mixture applied; and

9. Type of application equipment used.

2VAC5-680-70. Recordkeeping of pesticide applications by pesticide businesses.

Pesticide businesses shall maintain a record of each pesticide applied. This shall apply to both general use and restricted use pesticides. Each record shall contain the:

1. Name, address, and telephone number of customer and address or location, if different, of site of application;

2. Name and certification number (or certification number of the supervising certified applicator) of the person making the application;

3. Day, month and year of application;

4. Type of plants, crop, animals, or sites treated and principal pests to be controlled;

5. Acreage, area, or number of plants or animals treated;

6. Brand ~~name~~, trademark, or ~~common~~ product name appearing on the product's label;

7. EPA registration number;

8. Amount of pesticide concentrate and amount of diluent used, by weight or volume, in mixture applied; and

9. Type of application equipment used.

Part IV
Evidence of Financial Responsibility

2VAC5-680-80. Evidence of financial responsibility required of a licensed pesticide business.

A. Prior to being issued a pesticide business license, a business shall furnish evidence of financial responsibility, consisting of a liability insurance policy from a person authorized to do business in Virginia, or a certification thereof, protecting persons who may suffer legal damages as a result of the use of any pesticide by the applicant.

B. The liability insurance policy shall meet the following conditions:

1. The certificate of insurance shall include the name of the insurance company, policy number, insurance amount, type of coverage afforded, any exclusions relating to damage arising from the use of pesticides, and expiration date of the policy. The policy shall cover liability arising out of the handling, storage, application, use or misuse, or disposal of any pesticide; it shall also cover liability relating to completed operations.

2. The policy shall be in an amount specified in subsection C of this section.

3. The licensee shall forward a current certificate of insurance to the board at each insurance renewal date.

C. The amount of financial responsibility as provided for in this section shall be a minimum of $100,000 for property damage, and $100,000 for personal injury or death of one person; and $300,000 per occurrence. ~~The licensee shall maintain at least the minimum coverage at all times during the license period, and shall notify the board at least 10 days prior to any reduction at the request of the licensee or cancellation of such financial responsibility by the insurer.~~ If the deductible of an applicant for a business license is greater than $1,000, evidence of financial responsibility shall be furnished to the board to satisfy the difference between the applicant's deductible and the $1,000 deductible. This evidence may consist of a financial statement.

D. The licensee shall maintain at least the minimum coverage at all times during the license period and shall notify the board at least 10 days prior to any reduction at the request of the licensee or cancellation of such financial responsibility by the insurer.

VA.R. Doc. No. R16-4506; Filed September 6, 2016, 2:52 p.m.

TITLE 6. CRIMINAL JUSTICE AND CORRECTIONS

CRIMINAL JUSTICE SERVICES BOARD

Final Regulation

Title of Regulation: **6VAC20-120. Regulations Relating to Criminal History Record Information Use and Security (amending 6VAC20-120-20 through 6VAC20-120-80, 6VAC20-120-100 through 6VAC20-120-140, 6VAC20-120-160; repealing 6VAC20-120-10).**

Statutory Authority: §§ 9.1-102 and 9.1-131 of the Code of Virginia.

Effective Date: November 4, 2016.

Agency Contact: Barbara Peterson-Wilson, Law Enforcement Program Coordinator, Department of Criminal Justice Services, 1100 Bank Street, Richmond, VA 23219, telephone (804) 225-4503, FAX (804) 225-3853, or email barbara.peterson-wilson@dcjs.virginia.gov.

Summary:

The amendments (i) update definitions, (ii) clarify that the department does not have the authority to audit noncriminal justice agencies or individuals, (iii) update provisions relating to the Central Criminal Records Exchange (CCRE), (iv) clarify that agencies are not authorized to query CCRE at the request of an individual, (iv) reflect statutory provisions relating to expunged records and court requirements when using imaged case records, and (v) make technical or corrective changes.

Summary of Public Comments and Agency's Response: No public comments were received by the promulgating agency.

[Part I
General]

6VAC20-120-10. ~~Purpose.~~ (Repealed.)

~~Pursuant to the provisions of §§ 9-170-1, 9-170-15, 9-170-16, 9-170-17, 9-170-21 and §§ 9-184 through 9-196 of the Code of Virginia, the Criminal Justice Services Board hereby promulgates the following regulations relating to Criminal History Record Information Use and Security.~~

~~The purpose of these regulations is to assure that state and local criminal justice agencies maintaining criminal history record information establish required record keeping procedures to ensure that criminal history record information is accurate, complete, timely, electronically and physically secure, and disseminated only in accordance with federal and state legislation and regulations. Agencies may implement specific procedures appropriate to their particular systems, but at a minimum shall abide by the requirements outlined herein.~~

[~~Part I~~
~~General~~]

6VAC20-120-20. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

"Access" means the ability to obtain, directly or through an intermediary, criminal history record information contained in manual or automated files.

"Board" means the Criminal Justice Services Board, as defined in § ~~9-168~~ 9.1-108 of the Code of Virginia.

"Central Criminal Records Exchange~~ (CCRE)~~" [~~or "CCRE"~~] means the repository in this Commonwealth ~~which~~ that receives, identifies, maintains, and disseminates individual criminal history records, in accordance with ~~§ 9-170-22~~ Chapter 23 (§ 19.2-387 et seq.) of Title 19.2 of the Code of Virginia.

"Challenge" means an individual's objection to his criminal history record information.

"Conviction data" means information in the custody of any criminal justice agency relating to a ~~judgement~~ judgment of conviction, and the consequences arising therefrom, in any court.

"Correctional status information" means records and data concerning each condition of a convicted person's custodial status, including probation, confinement, work release, study release, escape, or termination of custody through expiration of sentence, parole, pardon, or court decision.

"Criminal history record information" means records and data collected by criminal justice agencies on adult individuals consisting of identifiable descriptions and notations of arrests, detentions, indictments, ~~informations~~ information, or other formal charges and any disposition arising therefrom. The term shall not include juvenile record information which is controlled by ~~Chapter 11 (§ 16.1-226 et seq.), of Title 16.1~~ §§ 16.1-299 and 19.2-389.1 of the Code of Virginia, criminal justice investigative information, or correctional status information.

"Criminal history record information area" means any office, room, or space in which criminal history record information is regularly collected, processed, stored, or disseminated to an authorized user. This area includes computer rooms, computer terminal workstations, file rooms, and any other rooms or space in which ~~the above~~ those activities are carried out.

"Criminal intelligence information" means ~~information on identifiable individuals compiled in an effort to anticipate, prevent or monitor possible~~ data that has been evaluated and determined to be relevant to the identification and criminal activity of individuals or organizations that are reasonably suspected of involvement in criminal activity. Criminal intelligence information shall not include criminal investigative files.

"Criminal investigative information" means information on identifiable individuals compiled in the course of the investigation of specific criminal acts.

"Criminal justice agency" means a court or any other governmental agency or subunit thereof ~~which~~ that as its principal function performs the administration of criminal justice and any other agency or subunit thereof ~~which~~ that performs criminal justice activities.

"Criminal justice information system" means a system, including the equipment, facilities, procedures, agreements, and organizations thereof, ~~which~~ that is used for the collection, processing, preservation, or dissemination of criminal history record information. The operations of the system may be performed manually or by using electronic computers or other automated data processing equipment.

"Department" means the Department of Criminal Justice Services.

"Destroy" means to totally eliminate and eradicate by various methods, including, but not limited to, shredding, incinerating, or pulping.

"Director" means the chief administrative officer of the department.

"Dissemination" means any transfer of information, whether orally, in writing, or by electronic means. The term does not include access to the information by officers or employees of a criminal justice agency maintaining the information who have both a need and a right to know the information.

"Expunge" means to remove, in accordance with a court order, a criminal history record~~,~~ or a portion of a record~~,~~ from public inspection or normal access.

"Modify" means to add or delete information from a record to accurately reflect the reported facts of an individual's criminal history record. (See § ~~9-192(C)~~ 9.1-132 of the Code of Virginia.) This includes eradicating, supplementing, updating, and correcting inaccurate and erroneous information.

"Noncriminal justice agencies or individuals" means those agencies or individuals authorized to receive limited criminal history record information pursuant to a specific agreement with a criminal justice agency under the provisions of subsection A of § 19.2-389 of the Code of Virginia.

"Originating agency identifier" or "ORI" means a unique nine-character designation used to identify the agency that places records in the Virginia Criminal Information Network (VCIN).

"Seal" means to physically prevent access to a criminal history record~~,~~ or portion of a criminal history record.

"Superintendent" means the chief administrative officer of the Virginia Department of State Police.

Part II
Criminal History Record Information Use

6VAC20-120-30. Applicability.

~~These regulations govern~~ A. This chapter governs originals and copies of manual or automated criminal history record information ~~which~~ that are used, collected, stored, or disseminated by ~~a~~ state or local criminal justice agencies or other agencies receiving criminal history record information in the Commonwealth. ~~The regulations~~ This chapter also ~~set~~ sets forth the required procedures that ensure the proper processing of the expungement of criminal history record information. The provisions of this chapter apply to the following groups, agencies, and individuals:

1. State and local criminal justice agencies and subunits of these agencies in the Commonwealth; and

2. The United States Government or the government of another state or its political subdivisions ~~which~~ that exchange such information with criminal justice agencies in the Commonwealth, but only to the extent of that exchange~~;~~.

~~3. Noncriminal justice agencies or individuals who are eligible under the provisions of § 19.2-389 of the Code of Virginia to receive limited criminal history record information.~~

B. The provisions of this chapter do not apply to~~:~~ (i) original or copied records of entry, such as police blotters maintained by a criminal justice agency on a chronological basis and permitted to be made public, but only if such records are not indexed or accessible by name; (ii) offense and dispatch records maintained by a criminal justice agency on a chronological basis and permitted to be made public, if such records are not indexed or accessible by name or do not contain criminal history record information; (iii) court records of public criminal proceedings, including opinions and published compilations thereof; (iv) records of traffic offenses disseminated to or maintained by the Department of Motor Vehicles for the purpose of regulating the issuance, suspension, revocation, or renewal of drivers' or other operators' licenses; (v) statistical or analytical records or reports in which individuals are not identified and from which their identities are not ascertainable; (vi) announcements of executive clemency; (vii) posters, announcements, or lists for identifying or apprehending fugitives or wanted persons; and (viii) criminal justice intelligence information~~;~~ or criminal justice investigative information.

C. Nothing in this chapter shall be construed as prohibiting a criminal justice agency from disclosing to the public factual information concerning the status of an investigation~~,~~; the apprehension, arrest, release or prosecution of an individual~~,~~; the adjudication of charges~~,~~; or the correctional status of an individual, which is related to the offense for which the individual is currently within the criminal justice system.

6VAC20-120-40. Collection.

A. Responsibility. Responsibility for collecting and updating criminal history record information rests with:

1. State officials and criminal justice agencies having the power to arrest, detain, or hold convicted persons in correctional facilities;

2. Sheriffs of cities or counties;

3. Police officials of cities, counties, and towns;

4. Other local law-enforcement officers or conservators of the peace who have the power to arrest for a felony (see § 19.2-390 of the Code of Virginia);

5. Clerks of court and court agencies or officers of the court; and

6. Other criminal justice agencies or agencies having criminal justice responsibilities which generate criminal history record information.

B. Reportable offenses. The ~~above~~ officials listed in subsection A of this section and their representatives are required to submit to the Central Criminal Records Exchange, on forms provided by the Central Criminal Records Exchange, a report on every arrest they complete for:

1. Treason;

2. Felonies or offenses punishable as a misdemeanor under Title ~~54.1~~ 18.2 of the Code of Virginia;

3. Class 1 and 2 misdemeanors under Title 18.2 except an arrest for a violation of Article 2 (§ 18.2-266 et seq.) of Chapter 7 of Title 18.2; a violation of Article 2 (§ 18.2-415 et seq.) of Chapter 9 of Title 18.2, or § 18.2-119; or a violation of any similar ordinance of a county, city or town.

In addition to those offenses enumerated ~~above~~ in this subsection, the Central Criminal Records Exchange may receive, classify, and file any other fingerprints and records of arrest or confinement submitted to it by any law-enforcement agency or correctional institution.

The chief of police, sheriff, or criminal justice agency head is responsible for establishing a system to ensure that arrest forms are completed and submitted in a timely and accurate fashion.

C. Timelines of submission.

1. Arrests. Arrest reports for all offenses noted ~~above~~ in subsection B of this section, except as provided in this section, and a fingerprint card for the arrested individual shall be forwarded to the Central Criminal Records Exchange in accordance with the time limits specified by the Department of State Police. A copy of the Central Criminal Records Exchange arrest form shall also be sent to the local court (a copy of the form is provided for the courts) at the same time.

The link between the arrest report and the fingerprint card shall be established according to Central Criminal Records

Exchange requirements. Arrests that occur simultaneously for multiple offenses need only be accompanied by one fingerprint card.

~~2. Nonconvictions. For arrests except as noted in subdivision 3a below, the clerk of each circuit and district court shall notify the Central Criminal Records Exchange of the final action on a case. This notification must always be made no more than 30 days from the date the order is entered by the presiding judge.~~

~~3.~~ 2. Convictions. ~~a.~~ For persons arrested and released on summonses under § 19.2-74 of the Code of Virginia, the chief law-enforcement officer or his designee, who may be the arresting officer, shall furnish a fingerprint ~~cards~~ card and a completed copy of the Central Criminal Records Exchange form to the Central Criminal Records Exchange. The form shall be completed immediately upon conviction unless an appeal is noted. In the case of an appeal, officials responsible for reporting the disposition of charges shall report the conviction within 30 days after final action of the case.

~~b. For arrests except as noted in subdivision 3 a above, the clerk of each circuit and district court shall notify the Central Criminal Records Exchange of the final action on a case. This notification must always be made no more than 30 days after occurrence of the disposition.~~

~~4.~~ 3. Final disposition. State correctional officials shall submit to the Central Criminal Records Exchange the release status of an inmate of the state correctional system within 20 days of the release.

D. Updating and accuracy.

1. Arresting officers and court clerks noted ~~above~~ in subsection A of this section are responsible for notifying the Central Criminal Records Exchange in a timely ~~fashion~~ manner, and always within 30 days, of changes or errors and necessary corrections in arrests, convictions, or other dispositions~~,~~ concerning arrests and dispositions that the criminal justice agency originated. In the case of correctional status or release information, correctional officials are responsible for notifying the Central Criminal Records Exchange within the same time limits of updates or changes in correctional status information. Forms for updating and correcting information are provided by the Central Criminal Records Exchange.

2. Each criminal justice agency is required to supply timely corrections of criminal history record information the agency has provided to a criminal justice or a noncriminal justice agency for a period of two years after the date of dissemination.

E. Locally maintained and nonreportable offenses. Criminal history record information generated by a criminal justice agency and maintained in a locally used and maintained file, including criminal history record information on offenses not required to be reported to the Central Criminal Records Exchange but maintained in local files, as well as criminal history record information maintained by the Central Criminal Records Exchange, shall adhere to the standards of collection, timeliness, updating, and accuracy as required by ~~these regulations~~ this chapter. Arrests shall be noted and convictions or adjudications recorded within 30 days of court action or the elapse of time to appeal.

F. Except as provided in §§ 15.2-1722, 16.1-299, and 19.2-390 of the Code of Virginia, nothing contained in this article shall be construed as requiring any criminal justice agency to collect, maintain, or update criminal history record information, as defined in § 9.1-101 of the Code of Virginia, when such information is already available and readily accessible from another criminal justice agency.

6VAC20-120-50. Dissemination.

A. Authorization.

1. No criminal justice agency or individual shall confirm or deny the existence or nonexistence of a criminal history record to persons or agencies that would not be eligible to receive the information. No dissemination of a criminal history record is to be made to a noncriminal justice agency or individual if an interval of one year has elapsed from the date of arrest and no disposition of the charge has been recorded and no active prosecution of the charge is pending.

2. Criminal history record information or portions of an individual's record both maintained and used by criminal justice agencies and eligible recipients, maintained either at the Central Criminal Records Exchange~~,~~ or by the originating criminal justice agency, or both, shall only be disseminated as provided by § 19.2-389 of the Code of Virginia.

3. Upon receipt of a request for criminal history record information, by personal contact, mail, or electronic means from an agency or individual claiming to be authorized to obtain such information, the person responding to the request shall determine whether the requesting agency or individual is authorized to receive criminal history record information.

4. Criminal justice agencies shall determine what positions in their agency require regular access to criminal history record information as part of ~~their~~ the position's job responsibilities. These positions will be exempt from the ~~dissemination rules below~~ provisions of subsection B of this section. Use of criminal history record information by a member of a criminal justice agency not occupying a position authorized to receive criminal history record information, or for a purpose or activity other than one for which the person is authorized to receive criminal history record information, will be considered a dissemination and shall meet the provisions of this section. If the user of criminal history record information does not meet the procedures in subsection B of this section, the use of the

information will be considered an unauthorized dissemination.

5. The release of criminal history record information to an individual or entity not included in § 19.2-389 [of the Code of Virginia] is unlawful and unauthorized. An individual or criminal justice agency that releases criminal history record information to a party which does not clearly belong to one of the categories of agencies and individuals authorized to receive the information as outlined in § 19.2-389 ~~of the Code~~ is subject to being denied access to state and national criminal history record information on a temporary or permanent basis and to the administrative sanctions described in 6VAC20-120-100. Unlawful dissemination contrary to the provisions of this chapter is also a Class 2 misdemeanor (see § ~~9-195~~ 9.1-136 of the Code of Virginia).

B. Procedures for responding to requests. A criminal justice agency disseminating criminal history record information shall adhere to the following ~~regulations~~ provisions:

1. Allowable responses to requests. Local and regional criminal justice agencies may respond to requests for criminal history record information in two ways:

a. For offenses required to be reported to the Central Criminal Records Exchange (CCRE), they ~~may~~ shall refer the requester to the Central Criminal Records Exchange, which will directly provide the requester with the information~~, or shall themselves query the Central Criminal Records Exchange to obtain the most accurate and complete information available and provide the information to the requester~~. (See § 19.2-389 of the Code of Virginia.)

~~It should be noted that the Code of Virginia provides an exception to the above mentioned procedure for responding to information requests. The local law enforcement agency may directly provide criminal history record information to the requester without making an inquiry to the Central Criminal Records Exchange or referring the requester to the Central Criminal Records Exchange if the time is of the essence and the normal response time of the exchange would exceed the necessary time period. (See § 19.2-389 of the Code of Virginia.) Under circumstances where~~ When an inquiry to the exchange is not made, the record provided by the local law-enforcement agency should be accompanied by an appropriate disclaimer indicating that the record may not be complete.

b. For nonreportable offenses (i.e., those offenses not reported to the Central Criminal Records Exchange), the law-enforcement agency shall provide the information requested, following the dissemination procedures as required by ~~the regulations below~~ subdivisions 2 through 8 of this subsection.

2. Prior to dissemination. Prior to disseminating criminal history record information a criminal justice agency shall:

a. Verify requester identity.

(1) Individual requester. For an individual requesting his own record and not known to the person responding to the request, the individual shall provide proper identification, to include at least two of the following, one of which must be a photo identification: (i) a valid passport, (ii) drivers' license with photo, (iii) social security card, (iv) birth certificate, ~~or~~ (v) military identification, or (vi) state issued identification card with photo, if there is more than one name match. Fingerprints or other additional information shall be required if the disseminating criminal justice agency deems it appropriate or necessary to ensure a match of the record and the requesting subject.

(2) Criminal justice agencies. For personnel of criminal justice agencies requesting a record, the requester shall provide valid agency identification unless the disseminator recognizes the requesting individual as having previously been authorized to receive the information for the same purpose.

(3) Noncriminal justice agencies or individuals. For an individual requesting the record of another, as in the case of an attorney requesting the record of his client, the individual shall provide a sworn written request from the record subject naming the requester as a recipient, as provided in subsection A of § ~~19.2-389A~~ 19.2-389 of the Code of Virginia. The written request shall include the full name, date of birth, race, and sex of the record subject. Identification of the attorney or individual shall also be required unless the attorney or individual is known to the official responding to the request.

b. Verify record subject identity. Because serious harm could come from the matching of criminal history record information to the wrong individual, verification procedures shall be carefully managed, particularly when dissemination will be to noncriminal justice recipients. The following ~~verification methods are the only acceptable methods~~ information shall be reviewed to verify the record subject's identity:

(1) ~~Individual requesters. The verification requirements for individuals requesting their own records and for individual requesters with sworn requests from the subject of the information shall be the same as the requirements for noncriminal justice agencies as described below.~~ The full name, date of birth, race, and sex of the record subject. Fingerprint identification may be required prior to dissemination if there is any doubt as to the match. If a criminal justice agency does not have the capability to classify fingerprints, it may submit them by mail to the Central Criminal Records Exchange. Only when the information supplied and the information in the Central Criminal Records Exchange or local files satisfactorily match shall information be disseminated.

(2) ~~Criminal justice agencies.~~ Criminal history record information which reasonably corresponds to the name, aliases, and physical identity of the subject can be disseminated to a legitimate requester when time is of the essence or if criminal justice interests will be best served by the dissemination. This includes the dissemination of records with similar but not identical name spellings, similar physical characteristics, and similar but not identical aliases. When criminal history record information is obtained in this manner and results in an apparent match between the identity of the subject and the record, the criminal history record should be verified using fingerprint identification prior to prosecution, adjudication or sentencing of the record subject. If a criminal justice agency does not have the capability to classify fingerprints, it may submit them by mail to the Central Criminal Records Exchange.

~~(3) Noncriminal justice agencies. Full name, date of birth, race, and sex of the record subject must be provided by the requester for a criminal history record to be disseminated. Fingerprint identification may be required prior to dissemination if there is any doubt as to the match. If a criminal justice agency does not have the capability to classify fingerprints, it may submit them by mail to the Central Criminal Records Exchange. Information supplied by the requester and available through the Central Criminal Records Exchange (or in the local files where the request is for criminal history record information maintained only locally) must match to the satisfaction of the disseminator, or the dissemination shall not be made.~~

c. Notify requester of costs and restrictions. The official responsible for aiding the requester shall notify the requester of the costs involved and of restrictions generally imposed on use of the data, or be reasonably assured that the requester is familiar with the costs and restrictions, prior to beginning the search for the requested criminal history record information~~,~~ and shall obtain the consent of the requester to pay any charges associated with the dissemination.

3. Locating and disseminating information requested. Once a request for a criminal history record has been made, and the responsible official is satisfied as to the legitimacy of the request and the identity of the subject and has informed the requester of costs and restrictions, the responsible official conducting the search for the record shall supply the information ~~after querying the Central Criminal Records Exchange. However, if time is of the essence, or the offenses in a criminal history record are not required to be reported to Central Criminal Records Exchange, the responsible official may directly supply the information~~ contained in the local files on offenses not required to be reported to the Central Criminal records Exchange (see § 19.2-389 of the Code of Virginia).

4. Instructions regarding dissemination to requesters. The disseminated record must be accompanied by ~~one of~~ the ~~three following messages~~ message "UNAUTHORIZED DISSEMINATION WILL SUBJECT THE DISSEMINATOR TO CRIMINAL AND CIVIL PENALTIES" in printed form, ~~whichever matches the category of the requester~~ for the following requesters:

a. Record subjects. Record subjects have a right to receive and disseminate their own criminal history record information, subject to ~~these regulations~~ this chapter and subdivision 11 of § ~~19.2-389(11)~~ 19.2-389 of the Code of Virginia. If a record subject or his attorney complies with the requirements of ~~these sections~~ this section, he shall be given the requested criminal history record information. However, if an agency or individual receives a record from the record subject, that agency or individual shall not further disseminate the record. ~~The following printed message shall accompany the criminal history record information disseminated to a record subject:~~

~~"UNAUTHORIZED DISSEMINATION WILL SUBJECT THE DISSEMINATOR TO CRIMINAL AND CIVIL PENALTIES."~~

b. Criminal justice agencies. ~~The following printed message shall accompany the criminal history record information disseminated to a criminal justice agency:~~

~~"UNAUTHORIZED DISSEMINATION WILL SUBJECT THE DISSEMINATOR TO CRIMINAL AND CIVIL PENALTIES."~~

c. Noncriminal justice agencies and individuals other than record subjects. Even with the sworn consent of the record subject, only criminal history record information that is conviction data shall be disseminated to a noncriminal justice agency or an individual in compliance with the existing laws and shall not be disseminated further. ~~The following printed message shall accompany the criminal history record information disseminated to an individual or a noncriminal justice agency receiving criminal history record information:~~

~~"UNAUTHORIZED DISSEMINATION WILL SUBJECT THE DISSEMINATOR TO CRIMINAL AND CIVIL PENALTIES."~~

5. Maintaining a dissemination log. A record of ~~any dissemination~~ all secondary disseminations shall be maintained at the disseminating criminal justice agency or shall be accessible electronically for a period of at least two years from the date of the dissemination.

The dissemination log must list all requests for criminal history record information. The log may be automated or manual.

Records will include the following information on each dissemination:

a. Date of inquiry;

b. Requesting agency name and address or the agency ORI;

c. Identifying name and number (either FBI or state identification number of record subject, or notification of "no record found");

d. Name of requester within the agency requesting criminal history record information; and

e. Name of disseminator (officer or civilian who provides the criminal history record information to the requester).

6. Reporting unauthorized disseminations. While individual criminal justice agencies are not expected to audit agencies ~~who~~ that receive criminal history record information that they provide, in order to identify unauthorized releases, ~~they~~ individual criminal justice agencies shall notify the department of any violations observed of ~~the above dissemination regulations~~ this section. The department will investigate and respond to the violation in a manner deemed appropriate by the department.

A criminal justice agency ~~which~~ that knowingly fails to report a violation may be subject to immediate audit of its entire dissemination log to ensure that disseminations are being appropriately managed.

7. Interstate dissemination. Interstate dissemination of criminal history record information shall be subject to the procedures described ~~herein~~ in this section. Dissemination to an agency outside of the Commonwealth shall be carried out in compliance with Virginia law and this chapter, as if the agency were within the jurisdiction of the Commonwealth.

8. Fees. Criminal justice agencies may charge a reasonable fee for search and copying time expended when dissemination of criminal history record information is requested by a noncriminal justice agency or an individual. The criminal justice agency shall post the schedule of fees to be charged~~,~~ and shall obtain approval from the requester to pay such costs prior to initiating the search.

C. Limitations on use. Use of criminal history record information disseminated to noncriminal justice agencies shall be limited to the purposes for which the information was given and may not be disseminated further.

6VAC20-120-60. Access and review.

A. Who can review. An individual or his attorney, upon providing proper identification and in the case of an attorney representing a client, with a sworn written request from the record subject, shall have the right to inspect criminal history record information being maintained on that individual by the Central Criminal Records Exchange or other criminal justice agencies. Completing a request form ~~may~~ shall be required by the Central Criminal Records Exchange or the local criminal justice agency.

B. Review at local law-enforcement agency or central criminal records exchange.

1. An individual or his attorney may review the individual's criminal history record information arising from arrests for felonies and Class 1 and 2 misdemeanors maintained in the Central Criminal Records Exchange ~~by applying at any law enforcement agency with terminal capabilities on~~ through a request to the Virginia Criminal Information Network or to the Central Criminal Records Exchange of the Virginia Department of State Police~~,~~ during normal working hours. An individual or his attorney may review the individual's criminal history record regarding offenses not required to be reported to the Central Criminal Records Exchange at the arresting law-enforcement agency.

2. The law-enforcement agency to which the request is directed shall inform the individual or his attorney of the procedures associated with the review.

3. Individuals shall be provided, at cost, one copy of their record. If no record can be found, a statement shall be furnished to this effect.

C. Timeliness and completeness.

1. An individual requesting his own record shall be advised when the record will be available. In no case shall the time between request and availability of the record exceed one week, except where fingerprint identification is required; then it shall not exceed 30 days. Criminal justice agencies should seek to provide the record as soon as reasonably possible unless there are questions of identification.

2. The criminal justice agency locating an individual's criminal history record information shall examine its own files ~~and shall contact the Central Criminal Records Exchange~~ for the most up-to-date criminal history record information~~,~~ and supply ~~both~~ the criminal history record information to the requester.

D. Assistance.

1. The criminal justice agency to which the request is directed shall provide reasonable assistance to the individual or his attorney to help understand the record.

2. The official releasing the record shall also inform the individual of his right to challenge the record.

6VAC20-120-70. Challenge.

A. Individuals who desire to challenge their own criminal history record information must complete documentation provided by the criminal justice agency maintaining the record and forward it to the Central Criminal Records Exchange or the criminal justice agency maintaining the record. A duplicate copy of the form and the challenged record may be maintained by the individual initiating the challenge or review. The individual's record concerning arrests for felonies and Class 1 and 2 misdemeanors may be challenged at the Central Criminal Records Exchange ~~or the criminal justice agency maintaining the record~~ of the Department of the State Police. For offenses not required to be reported to the Central Criminal Records Exchange, the challenge shall be made at the arresting law-enforcement agency or the criminal justice agency maintaining the records.

~~A challenge will be processed as described below.~~

~~A. Record~~ B. A challenge to a record maintained by the Central Criminal Records Exchange~~.~~ will be processed as follows:

1. Message flags. If the challenge is made of a record maintained by the Central Criminal Records Exchange, both the manual and the automated record shall be flagged with the message "CHALLENGED RECORD." A challenged record shall carry this message when disseminated while under challenge.

2. Review at exchange. The Central Criminal Records Exchange shall compare the information contained in the repository files as reviewed by the individual with the original arrest or disposition form. If no error is located, the Central Criminal Records Exchange (i) shall forward a copy of the challenge form, a copy of the Central Criminal Records Exchange record, and other relevant information to the criminal justice agency or agencies which the Central Criminal Records Exchange records indicate as having originated the information under challenge~~,~~ and (ii) shall request them to examine the relevant files to determine the validity of the challenge.

3. Examination. The criminal justice agency or agencies responsible for originating the challenged record shall conduct an examination of their source data, the contents of the challenge, and information supplied by the Central Criminal Records Exchange for any discrepancies or errors~~,~~ and shall advise the Central Criminal Records Exchange of the results of the examination.

4. Correction. If any modification of a Central Criminal Records Exchange record is required, the Central Criminal Records Exchange shall modify the record and shall then notify the criminal justice agency in which the record was originally reviewed of its action~~,~~ and supply it and other agencies involved in the review with a copy of the corrected record.

5. Notification by Central Criminal Records Exchange. The Central Criminal Records Exchange shall also provide notification of the correction to all recipients of the record within the last 24 months.

6. Notification by other criminal justice agencies. Criminal justice agencies ~~which~~ that have disseminated an erroneous or incomplete record shall in turn notify agencies ~~which~~ that have received the disseminated record or portion of the record in the last two years from the date of the Central Criminal Records Exchange modifications of the records. Notification shall consist of sending a copy of the original record~~,~~ and corrections made~~,~~ to the recipients of the erroneous record noted in the dissemination log for the two-year period prior to the date of correction by the Central Criminal Records Exchange. (See § ~~9-192-C~~ 9.1-132 of the Code of Virginia.) The criminal justice agency in which the review and challenge occurred shall notify the individual or his attorney of the action of Central Criminal Records Exchange.

7. Appeal. The record subject or his attorney, upon being told of the results of his record review, shall also be informed of his right to review and appeal those results.

~~B. Record~~ C. A challenge to a record maintained by a criminal justice agency other than the central Criminal Records Exchange~~.~~ will be processed as follows:

1. Message flags. If a challenge is made of a record maintained by a criminal justice agency, both the manual and the automated record shall be flagged with the message "CHALLENGED RECORD." A disseminated record shall contain this message while under challenge.

2. Examination and correction agency. If the challenged record pertains to the criminal justice agency's arrest information, the arresting agency shall examine the relevant files to determine the ~~vailidity~~ validity of the challenge. If the review demonstrates that modification is in order, the modification shall be completed and the erroneous information destroyed. If the challenged record pertains to the disposition information, the arresting agency shall compare contents of the challenge with information originally supplied by the clerk of the court.

3. Review by ~~Clerk~~ clerk of ~~Court~~ court. If no error is found in the criminal justice agency's records, the arresting agency shall forward the challenge to the clerk of the court ~~that~~ who submitted the original disposition. The clerk of the court shall examine the court records pursuant to the challenge and shall, in turn, notify the arresting agency of its findings. The arresting agency shall then proceed as described in [~~subsection~~] ~~B~~ [subdivision] C 2 of this section.

4. Notification. The criminal justice agency in which the challenge occurred shall notify the individual or his attorney of the action taken~~,~~ and shall notify the Central Criminal Records Exchange and other criminal justice agencies receiving the erroneous information of the necessary corrections if required, as well as the noncriminal justice agencies to which it has distributed the information in the last 24 months, as noted in its dissemination log.

5. Correction. The Central Criminal Records Exchange will correct its records~~,~~ and notify agencies that received erroneous information within the past 24 months. The agencies will be requested to correct their files and to notify agencies ~~which~~ that have the disseminated information, as provided in [~~subsection~~] ~~A~~ [subdivision] B 6 of this section.

6. Appeal. The record subject or his attorney, upon receiving the results of the record review, shall be informed of the right to review and appeal.

~~C.~~ D. Administrative review of challenge results.

1. Review by criminal justice agency head. After the ~~aforementioned~~ review and challenge, in accordance with this section, concerning a record either in the Central Criminal Records Exchange or another criminal justice agency, the individual or his attorney may~~,~~ within 30 days~~,~~ request in writing that the head of the criminal justice agency in which the challenge was made~~,~~ review the challenge if the individual is not satisfied with the results of the review and challenge.

2. Thirty-day review. The criminal justice agency head or his designated official shall review the challenge by reviewing the action taken by the agency, the Central Criminal Records Exchange, and other criminal justice agencies~~,~~ and shall notify the individual or his attorney in writing of the decision within 30 days of the receipt of the written request to review the challenge. The criminal justice agency head shall also notify the individual of the option to request an administrative appeal through the department within 30 days of the postmarked date of the notification of the decision. This notification of the appeal shall include the address of the Department of Criminal Justice Services.

3. Correction and notification. If required, correction and notification shall follow the procedures outlined in subsections ~~A~~ B and ~~B~~ C of this section.

4. Notification of the department. A copy of the notice required in ~~subsection C~~ subdivision D 2 of this section shall be forwarded to the department by the criminal justice agency at the same time it is provided to the individual.

~~D.~~ E. Administrative appeal.

1. Departmental assessment. The individual or his attorney challenging his record, within 30 days of the postmark of his notification of the decision of the administrative review, may request that the Director of the Department of Criminal Justice Services review the challenge and conduct an informal hearing. The director may designate a hearing officer for this purpose.

2. Determination of merits of case. The director ~~of~~ or his designee shall contact the criminal justice agencies involved and request any and all information needed. Criminal justice agencies shall supply the information requested in a timely manner~~,~~ to allow the department to respond to the individual within 30 days. The director will then rule on the merits of a hearing and notify the individual or his attorney that such hearing will or will not be held.

3. Hearing. The hearing, if held, shall be conducted within 30 days of the receipt of the request, and the decision of the hearing officer communicated to the individual or his attorney within 30 days of the hearing.

4. Finding. If the director or the hearing officer determines that correction and modification of the records are required, correction of the record and notification of all involved parties shall proceed according to the procedures outlined in subsections ~~A~~ B and ~~B~~ C of this section.

5. Removal of a challenge designation. When records and relevant action taken by the criminal justice agencies involved are deemed to be correct, the department shall notify the affected criminal justice agencies to remove the challenge designation from their files.

~~E.~~ F. Department notification following corrections. For audit purposes, the Central Criminal Records Exchange shall annually forward the names and addresses of the agencies ~~which~~ that originated erroneous record information or received erroneous information from the exchange in that year to the Department of Criminal Justice Services.

6VAC20-120-80. Expungement and sealing.

A. ~~Responsibility of the Superintendent of the Virginia Department of State Police.~~ The expungement of a criminal history record or portion thereof is only permitted on the basis of a court order. Upon receipt of a court order, petition, and other supporting documents for the expungement of a criminal history record, the superintendent, pursuant to § 19.2-392.2 of the Code of Virginia, shall by letter with an enclosed copy of the order~~,~~ direct the Central Criminal Records Exchange and those agencies and individuals known to maintain or to have obtained such a record~~,~~ to remove the electronic or manual record or portion thereof from its repository and place it in a physically sealed, separate file. The file shall be properly indexed to allow for later retrieval of the record if required by court order, and the record shall be labeled with the following designation: "EXPUNGED RECORD TO BE UNSEALED ONLY BY COURT ORDER."

B. Responsibility of agencies with a record to be expunged. The record named in the Virginia Department of State Police's letter shall be removed from normal access. The expunged information shall be sealed but remain available, as the courts may call for its reopening at a later date. (See § 19.2-392.3 of the Code of Virginia.) Access to the record shall be possible only through a name index of expunged records maintained either with the expunged records or in a manner that will allow subsequent retrieval of the expunged record as may be required by the court or as part of the department's audit procedures. Should the name index make reference to the expunged record, it shall be apart from normally accessed files.

C. Procedure for expungement and sealing of electronic and hard copy records.

1. The expungement and sealing of hard copy original records of entry (arrest forms) is accomplished by physically removing them from a file~~,~~ and filing them in a physically secure location elsewhere, apart from normally accessed files. This file should be used only for expunged

records and should be accessible only to the manager of records.

2. If the information to be expunged is included among other information that has not been expunged on the same form or piece of paper, the expunged information shall be obliterated on the original or the original shall be retyped eliminating the expunged information. The expunged information shall then be placed in the file for expunged records, in its original or copied form, and shall be accessible only to the manager of records.

3. If the expunged information is located on a criminal history record provided by the Central Criminal Records Exchange (i.e., "RAP sheet"), the criminal history record information shall be destroyed, and a new copy, not containing the expunged data, shall be obtained when necessary.

D. Procedure for expunging automated records. Should the record to be expunged be maintained in an automated system, the Central Criminal Record Exchange or the agency known to possess such a record shall copy the automated record onto an off-line medium such as [~~tape, disk~~ hard disk drive, USB flash drive], or hard copy printouts. The expunged record, regardless of the type of medium on which it is maintained, shall then be kept in a file used for expunged records and sealed from normal use, accessible only to the manager of records. No notification that expunged data exists shall be left in the normally accessed files.

Notwithstanding any other provisions of this section, any imaged case records maintained in any circuit court, general district court, or juvenile and domestic relations district court case imaging system operated by the Office of the Executive Secretary for the Supreme Court of Virginia that are to be expunged may be transferred to a confidential and secure area inaccessible from normal use within the case imaging system and shall be considered sealed. Access to the expunged, imaged case records shall be limited to the manager of records for the court with the exception of designated staff within the Office of the Executive Secretary who are responsible for the operation of such case imaging systems and have access to the confidential and secure area for the discrete purpose of providing the manager of the records access to the secure area. No notification that expunged data exists shall be left in the normally accessed case imaging system. Any related records that are maintained in an electronic order book shall also be deleted.

E. Department to be notified following expungement. Upon receipt of a request from the Virginia Department of State Police to expunge and seal a record, the affected agency or agencies shall perform the steps ~~above~~ of this section, and notify the Virginia Department of State Police of their action in writing within ~~120~~ 60 days of their receipt of the request.

F. Expungement order not received by department. Should a court ordered expungement be directed to a criminal justice agency other than the Virginia Department of State Police, the directed criminal justice agency shall comply as outlined ~~herein~~ in this section and advise the superintendent without delay of such order. The superintendent shall, upon receipt of such notification, obtain a copy of the order from the appropriate circuit court.

6VAC20-120-100. Administrative sanctions.

Discovery of violations or failure to comply with this chapter in whole or in part will occasion the following sanctions. Additional criminal penalties and other sanctions may be invoked as provided in 6VAC20-120-50 should the violation involve an unauthorized dissemination.

~~A.~~ 1. Law-enforcement agencies.

~~1.~~ a. Should a law-enforcement agency fail to comply with this chapter, a letter will be forwarded by the ~~Department~~ department to either the chief of police or sheriff, citing the problem and notifying the police department or the sheriff's department that the matter will be referred to the chief official of the locality or local commonwealth's attorney, respectively, if a satisfactory result is not forthcoming. The criminal justice agency shall have 10 ~~working~~ business days to respond with a letter describing how the situation was remedied or explaining why there is no need to do so.

~~2.~~ b. Should there be no satisfactory response after the 10 ~~working~~ business day period, the matter will be referred to the offices of the city, county, or town manager or the local commonwealth's attorney requesting resolution of the matter within 30 days.

~~3.~~ c. If 30 days have passed and the matter fails to be resolved to the satisfaction of the department, the matter will be referred to the Criminal Justice Services Board and the Office of the Attorney General for action.

~~B.~~ 2. Courts.

~~1.~~ a. Should a court or officer of the court fail to comply with ~~these regulations~~ this chapter, a letter will be forwarded by the department to the court, citing the problem and notifying the court clerk that the matter will be referred to the chief judge of the locality and the local commonwealth's attorney if a satisfactory result is not forthcoming. The court shall have 10 ~~working~~ business days to respond with a letter describing how the situation was remedied or explaining why there is no need to do so.

~~2.~~ b. Should there be no satisfactory response after the 10 ~~working~~ business day period, the matter will be referred to the chief judge requesting resolution of the matter within 30 days. The Executive Secretary of the Supreme Court of Virginia will also be notified.

~~3.~~ c. If 30 days have passed and the matter fails to be resolved to the satisfaction of the department, the matter will be referred to the Criminal Justice Services Board and the Chief Justice of Virginia.

Part III
Criminal History Record Information Security

6VAC20-120-110. Applicability.

~~These regulations are~~ A. This chapter is applicable to criminal justice information systems operated within the Commonwealth of Virginia. These regulations on security are not applicable to court records or other records expressly excluded by § ~~9-184, B~~ 9.1-126 of the Code of Virginia.

~~These regulations establish~~ B. This part establishes a minimum set of security standards ~~which~~ that shall apply to any manual or automated recordkeeping system ~~which~~ that collects, stores, processes, or disseminates criminal history record information.

C. Where individuals or noncriminal justice agencies are authorized to have direct access to criminal history record information pursuant to a specific agreement with a criminal justice agency to provide service required for the administration of criminal justice, the service support agreement will embody the restrictions on dissemination and the security requirements contained in ~~these regulations~~ this chapter and the Code of Virginia.

6VAC20-120-120. Responsibilities.

A. In addition to those responsibilities mandated by state and federal laws, the Department of State Police shall have the responsibility for the implementation of ~~these regulations~~ this chapter in regard to the operation of the Central Criminal Records Exchange.

B. The implementation of ~~these regulations~~ this chapter, except as set forth in [~~the~~] ~~above paragraph~~ subsection A of this section, shall be the responsibility of the criminal justice agency as designated and authorized by the county or municipality in cases of political subdivisions. Nothing in ~~these regulations~~ this chapter shall be deemed to affect in any way the exercise of responsibility conferred on counties and municipalities of the state under Title [~~15.1~~ 15.2] of the Code of Virginia. The determination of the suitability of the actual procedures instituted by the criminal justice agency will be the subject of study in any audit by the department, mandated by § ~~9-186~~ 9.1-131 of the Code of Virginia.

6VAC20-120-130. Physical access.

A. Access to areas in which criminal history record information is collected, stored, processed, or disseminated shall be limited to authorized persons. Control of access shall be ensured through the use of locks, guards, or other appropriate means. Authorized personnel shall be clearly [~~indentified~~ identified].

B. Procedures shall be established to detect an unauthorized attempt or access. Furthermore, a procedure shall be established to be followed in those cases in which an attempt or unauthorized access is detected. Such procedures shall become part of the orientation of employees working in criminal history record information ~~area(s)~~ area or areas and shall be reviewed periodically to ensure their effectiveness.

C. Criminal justice agencies shall provide direct access to criminal history record information only to authorized officers or employees of a criminal justice agency and, as necessary, other authorized personnel essential to the proper operation of the criminal history record information system.

D. Criminal justice agencies shall institute, where computer processing is not utilized, procedures to ensure that an individual or agency authorized to have direct access is responsible for~~:~~ (i) the physical security of criminal history record information under its control or in its custody~~,~~ and (ii) the protection of such information from unauthorized access, disclosure, or dissemination.

E. Procedures shall be instituted to protect any central repository of criminal history record information from unauthorized access, theft, sabotage, fire, flood, wind, or other natural or man-made disasters.

F. For criminal justice agencies that have their criminal history files automated, it is highly recommended that "backup" copies of criminal history information be maintained, preferably off-site. Further, for larger criminal justice agencies having automated systems, it is recommended that the criminal justice agencies develop a disaster recovery plan. The plan should be available for inspection and review by the department.

G. System specifications and documentation shall be carefully controlled to prevent unauthorized access and dissemination.

6VAC20-120-140. Personnel.

In accordance with applicable law, ordinances, and regulations, the criminal justice agency shall:

~~A.~~ 1. Screen and have the right to reject for employment, based on good cause, personnel to be authorized to have direct access to criminal history record information;

~~B.~~ 2. Have the right to initiate or cause to be initiated administrative action leading to the transfer or removal of personnel authorized to have direct access to this information where these personnel violate the provisions of ~~these regulations~~ this chapter or other security requirements established for the collection, storage, or dissemination of criminal history record information; and

~~C.~~ 3. Ensure that all employees working with or having access to criminal history record information shall be made familiar with the substance and intent of ~~these regulations~~ this chapter. Designated employees shall be briefed on their roles and responsibilities in protecting the information resources in the criminal justice agency. Special procedures connected with security shall be reviewed periodically to ensure their relevance and continuing effectiveness.

6VAC20-120-160. Computer operations.

A. Where computerized data processing is employed, effective and technologically advanced software and

hardware design shall be instituted to prevent unauthorized access to this information.

B. Computer operations, whether dedicated or shared, ~~which~~ that support criminal justice information systems shall operate in accordance with procedures developed or approved by the participating criminal justice agencies.

C. Criminal history record information shall be stored by the computer in such a manner that it cannot be modified, destroyed, accessed, changed, purged, or overlaid in any fashion by noncriminal justice terminals.

D. Operational programs shall be used that will prohibit inquiry, record updates, or destruction of records~~,~~ from terminals other than criminal justice system terminals ~~which~~ that are so designated.

E. The destruction of record shall be limited to designated terminals under the direct control of the criminal justice agency responsible for creating or storing the criminal history record information.

F. Operational programs shall be used to detect and log all unauthorized attempts to penetrate criminal history record information systems, programs, or files.

G. Programs designed (i) for the purpose of prohibiting unauthorized inquiries, unauthorized record updates, or unauthorized destruction of records~~,~~ or (ii) for the detection and logging of unauthorized attempts to penetrate criminal history record information systems shall be known only to the criminal justice agency employees responsible for criminal history record information system control or individuals and agencies pursuant to a specific agreement with the criminal justice agency to provide such security programs. The ~~program(s)~~ program or programs shall be kept under maximum security conditions.

H. Criminal justice agencies having automated criminal history record files ~~should~~ shall designate a system administrator to maintain and control authorized user accounts, system management, and the implementation of security measures.

I. The criminal justice agency shall have the right to audit, monitor, and inspect procedures established pursuant to ~~these rules and regulations~~ this chapter.

VA.R. Doc. No. R14-3370; Filed September 11, 2016, 2:32 p.m.

TITLE 12. HEALTH

STATE BOARD OF HEALTH

Fast-Track Regulation

Title of Regulation: **12VAC5-66. Regulations Governing Durable Do Not Resuscitate Orders (amending 12VAC5-66-10).**

Statutory Authority: §§ 32.1-12 and 32.1-111.4 of the Code of Virginia.

Public Hearing Information: No public hearings are scheduled.

Public Comment Deadline: November 2, 2016.

Effective Date: November 19, 2016.

Agency Contact: Michael Berg, Regulation and Compliance Manager, Office of Emergency Medical Services, Department of Health, 1001 Technology Park Drive, Glen Allen, VA 23059, telephone (804) 888-9131, FAX (804) 371-3108, or email michael.berg@vdh.virginia.gov.

Basis: Section 54.1- 2987.1 of the Code of Virginia provides for the ability for health care practitioners to honor a Durable Do Not Resuscitate Order.

Section 32.1-111.4 authorizes the Board of Health to promulgate regulations for Emergency Medical Services personnel to follow Do Not Resuscitate Orders pursuant to § 54.1.2987.1.

Purpose: The addition of physician order for scope of treatment (POST) within the definition of "Durable Do Not Resuscitate Order" will clarify for EMS providers and health care professionals working at medical facilities that the POST form is a recognized form of a Durable Do Not Resuscitate Order. The additional terminology will add to the health and welfare of the public in allowing another choice in end-of-life decision-making processes.

Rationale for Using Fast-Track Rulemaking Process: During the periodic review of this chapter, only four comments were submitted. All of the comments supported the addition of "POST" to the definition of "Durable Do Not Resuscitate Order." No other stakeholders have voiced any opposition to this recommended addition.

Substance: Within the definition of "Durable Do Not Resuscitate Order" in 12VAC5-66-10, add the following terminology:

""Durable DNR Order" shall also include a physician order for scope of treatment (POST) form. Durable DNR Orders including POST forms shall be completed and signed by a licensed practitioner and signed by the patient or patient's authorized representative."

Issues: The addition of the terminology of "POST" affords the public a clearer understanding of other acceptable "Durable Do Not Resuscitate" forms as identified within the regulations. This permits greater flexibility for practitioners and other allied health care workers to include the patient and emergency medical services providers in the utilization of documentation that clearly recognizes and acknowledges the patient's wishes concerning end of life decisions. There are no additional advantages to the Commonwealth. There are no disadvantages to the public, agency, or the Commonwealth.

Small Business Impact Review Report of Findings: This regulatory action serves as the report of the findings of the regulatory review pursuant to § 2.2-4007.1 of the Code of Virginia.

Department of Planning and Budget's Economic Impact Analysis:

Summary of the Proposed Amendments to Regulation. The State Board of Health (Board) proposes to clarify that a Physician Orders for Scope of Treatment (POST) form is an authorized form of a Durable Do Not Resuscitate (DNR) Order.

Result of Analysis. The benefits likely exceed the costs for all proposed changes.

Estimated Economic Impact. A Durable DNR Order is a written physician's order issued in a form or forms authorized by the Board to withhold cardiopulmonary resuscitation from an individual in the event of a cardiac or respiratory arrest. According to the Virginia Department of Health (VDH), some hospitals in Virginia started utilizing the POST form as a form of a Durable DNR Order with the approval of the Board about five years ago. However, some hospitals have been hesitant to use the POST form as an alternate form despite the Board's policy in the absence of it being addressed in regulation. The proposed change clarifies that the POST form is an authorized form of a Durable DNR order. Thus, the main effect of the proposed change is the clarification of the Board's existing policy on what is considered an authorized Durable DNR Order.

Businesses and Entities Affected. According to VDH, there are more than 51,000 physicians, nurse practitioners, and physician assistants in the Commonwealth. In addition, there are approximately 100 hospitals and 279 nursing facilities. The number of outstanding Durable DNR Orders or POST forms in Virginia is not known.

Localities Particularly Affected. The proposed changes apply statewide.

Projected Impact on Employment. The proposed change is not anticipated to create any impact on employment.

Effects on the Use and Value of Private Property. The proposed change is not anticipated to create any effects on the use and value of private property.

Real Estate Development Costs. No significant impact on real estate development costs is expected.

Small Businesses:

Definition. Pursuant to § 2.2-4007.04 of the Code of Virginia, small business is defined as "a business entity, including its affiliates, that (i) is independently owned and operated and (ii) employs fewer than 500 full-time employees or has gross annual sales of less than $6 million."

Costs and Other Effects. Most physician offices and nursing facilities are considered small businesses. The proposed change is not anticipated to create any significant costs or other effects on them.

Alternative Method that Minimizes Adverse Impact. No adverse impact on small businesses is expected.

Adverse Impacts:

Businesses. Most hospitals are considered non-small business. The proposed change is not anticipated to create any adverse impact on them.

Localities. No adverse impact on localities is expected.

Other Entities. No adverse impact on other entities is expected.

Agency's Response to Economic Impact Analysis: The Virginia Department of Health concurs with the results of the economic impact analysis.

Summary:

The amendment adds a physician order for scope of treatment form to the definition of the term "Durable Do Not Resuscitate Order."

Part I
Definitions

12VAC5-66-10. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Agent" means an adult appointed by the declarant under an advance directive, executed or made in accordance with the provisions of § 54.1-2983 of the Code of Virginia to make health care decisions for him.

"Alternate Durable DNR jewelry" means a Durable DNR bracelet or necklace issued by a vendor approved by the Virginia Office of Emergency Medical Services. A Durable DNR Order must be obtained by the patient, from a physician, to obtain Alternate Durable DNR jewelry.

"Board" means the State Board of Health.

"Cardiac arrest" means the cessation of a functional heartbeat.

"Commissioner" means the State Health Commissioner.

"Durable Do Not Resuscitate Order" or "Durable DNR Order" means a written physician's order issued pursuant to § 54.1-2987.1 of the Code of Virginia in a form or forms authorized by the board to withhold cardiopulmonary resuscitation from an individual in the event of cardiac or respiratory arrest. For purposes of this chapter, cardiopulmonary resuscitation shall include cardiac compression, endotracheal intubation and other advanced airway management, artificial ventilation, defibrillation, administration of cardiac resuscitative medications, and related procedures. As the terms "advance directive" and "Durable Do Not Resuscitate Order" are used in this article, a Durable Do Not Resuscitate Order or other DNR Order is not and shall not be construed as an advance directive. When used in these regulations, the term "Durable DNR Order" shall include any authorized Alternate Durable DNR jewelry issued in conjunction with an original Durable DNR Order. "Durable DNR Order" shall also include a physician order for scope of treatment (POST) form. Durable DNR orders

including POST forms shall be completed and signed by a licensed practitioner and signed by the patient or patient's authorized representative.

"Emergency Medical Services" or "EMS" means the services rendered by an agency licensed by the Virginia Office of Emergency Medical Services, an equivalent agency licensed by another state or a similar agency of the federal government when operating within this Commonwealth.

"Emergency medical services agency" or "EMS agency" means any agency, licensed to engage in the business, service, or regular activity, whether or not for profit, of transporting ~~and/or~~ or rendering immediate medical care to such persons who are sick, injured, wounded or otherwise incapacitated or helpless.

"Incapable of making an informed decision" means the inability of an adult patient, because of mental illness, ~~mental retardation~~ intellectual disability, or any other mental or physical disorder that precludes communication or impairs judgment, to make an informed decision about providing, withholding, or withdrawing a specific medical treatment or course of treatment because he is unable to understand the nature, extent, or probable consequences of the proposed medical decision, or to make a rational evaluation of the risks and benefits of alternatives to that decision. For purposes of this article, persons who are deaf or dysphasic or have other communication disorders but who are otherwise mentally competent and able to communicate by means other than speech, shall not be considered incapable of making an informed decision. The determination that the patient is "incapable of making an informed decision" shall be made in accordance with § 54.1-2983.2 of the Code of Virginia.

"Office of EMS" or "OEMS" means the Virginia Office of Emergency Medical Services. The Virginia Office of Emergency Medical Services is a state office located within the Virginia Department of Health (VDH).

"Other Do Not Resuscitate Order" or "Other DNR Order" means a written physician's order not to resuscitate a patient in the event of cardiac or respiratory arrest on a form other than the authorized state standardized Durable DNR Form under policies and procedures of the health care facility to which the individual who is the subject of the order has been admitted.

"Person authorized to consent on the patient's behalf" means any person authorized by law to consent on behalf of the patient incapable of making an informed decision or, in the case of a minor child, the parent or parents having custody of the child or the child's legal guardian or as otherwise provided by law.

"Physician" means a person licensed to practice medicine in the Commonwealth of Virginia or in the jurisdiction where the treatment is to be rendered or withheld.

"Qualified emergency medical services personnel" means personnel certified to practice as defined by § 32.1-111.1 of the Code of Virginia when acting within the scope of their certification.

"Qualified health care facility" means a facility, program, or organization operated or licensed by the State Board of Health or by the Department of Behavioral Health and Developmental Services (DBHDS) or operated, licensed, or owned by another state agency.

"Qualified health care personnel" means any qualified emergency medical services personnel and any licensed ~~healthcare~~ health care provider or practitioner functioning in any facility, program, or organization operated or licensed by the State Board of Health or by DBHDS or operated, licensed, or owned by another state agency.

"Respiratory arrest" means cessation of breathing.

VA.R. Doc. No. R17-4580; Filed September 6, 2016, 1:32 p.m.

Final Regulation

REGISTRAR'S NOTICE: The following regulatory action is exempt from Article 2 of the Administrative Process Act in accordance with § 2.2-4006 A 4 c of the Code of Virginia, which excludes regulations that are necessary to meet the requirements of federal law or regulations, provided such regulations do not differ materially from those required by federal law or regulation. The State Board of Health will receive, consider, and respond to petitions by any interested person at any time with respect to reconsideration or revision.

Title of Regulation: **12VAC5-590. Waterworks Regulations (amending 12VAC5-590-10, 12VAC5-590-140, 12VAC5-590-150, 12VAC5-590-350, 12VAC5-590-370, 12VAC5-590-379, 12VAC5-590-380, 12VAC5-590-440, 12VAC5-590-530, 12VAC5-590-540, 12VAC5-590-545, 12VAC5-590-550; adding 12VAC5-590-392).**

Statutory Authority: §§ 32.1-12 and 32.1-170 of the Code of Virginia.

Effective Date: November 2, 2016.

Agency Contact: Robert A.K. Payne, Compliance Manager, Department of Health, 109 Governor Street, Richmond, VA 23219, telephone (804) 864-7498, or email rob.payne@vdh.virginia.gov.

Summary:

The amendments (i) require waterworks owners to perform assessments, identify sanitary defects, and take corrective actions; (ii) link monitoring frequency to drinking water bacteriological quality and waterworks performance by requiring increased monitoring for high-risk small waterworks with poor compliance histories and implementing new monitoring requirements for seasonal waterworks; (iii) establish a non-numeric primary maximum contaminant level (PMCL) for E. coli and a maximum contaminant level goal (MCLG) of zero for E. coli; (iv) eliminate the PMCL and MCLG for total coliforms, replacing them with a treatment technique that requires an assessment with corrective action; (v) require

public notification of exceedance of the PMCL for E. coli and violations of treatment technique, monitoring, reporting, and recordkeeping requirements; and (vi) eliminate monthly public notification requirements based solely on the presence of total coliforms. The amendments are necessary to conform the regulation to the federal Revised Total Coliform Rule, which was published in 78 FR 10270 February 13, 2013, and amended the National Primary Drinking Water Regulations.

Part I
General Framework for Waterworks Regulations

Article 1
Definitions

12VAC5-590-10. Definitions.

As used in this chapter, the following words and terms shall have meanings respectively set forth unless the context clearly requires a different meaning:

"Action level" means the concentration of lead or copper in water specified in 12VAC5-590-385, which determines, in some cases, the treatment requirements contained in 12VAC5-590-405 that an owner is required to complete.

"Air gap separation" means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying pure water to a tank, plumbing fixture, or other device and the rim of the receptacle.

"Annual daily water demand" means the average rate of daily water usage over at least the most recent three-year period.

"Applied water" means water that is ready for filtration.

"Approved" means material, equipment, workmanship, process or method that has been accepted by the commissioner as suitable for the proposed use.

"Auxiliary water system" means any water system on or available to the premises other than the waterworks. These auxiliary waters may include water from a source such as wells, lakes, or streams; process fluids; or used water. They may be polluted or contaminated or objectionable, or constitute an unapproved water source or system over which the water purveyor does not have control.

"Backflow" means the flow of water or other liquids, mixtures, or substances into the distribution piping of a waterworks from any source or sources other than its intended source.

"Backflow prevention device" means any approved device, method, or type of construction intended to prevent backflow into a waterworks.

"Bag filters" means pressure-driven separation devices that remove particulate matter larger than one micrometer using an engineered porous filtration media. They are typically constructed of a nonrigid, fabric filtration media housed in a pressure vessel in which the direction of flow is from the inside of the bag to outside.

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

"Best available technology" or "BAT" means the best technology, treatment techniques, or other means that the commissioner finds, after examination for efficacy under field conditions and not solely under laboratory conditions and in conformance with applicable EPA regulations, are available (taking cost into consideration).

"Board" means the State Board of Health.

"Breakpoint chlorination" means the addition of chlorine to water until the chlorine demand has been satisfied and further additions result in a residual that is directly proportional to the amount added.

"Cartridge filters" means pressure-driven separation devices that remove particulate matter larger than one micrometer using an engineered porous filtration media. They are typically constructed as rigid or semi-rigid, self-supporting filter elements housed in pressure vessels in which flow is from the outside of the cartridge to the inside.

"Chlorine" means dry chlorine.

"Chlorine gas" means dry chlorine in the gaseous state.

"Chlorine solution (chlorine water)" means a solution of chlorine in water.

"Chronically noncompliant waterworks" or "CNC" means a waterworks that is unable to provide pure water for any of the following reasons: (i) the waterworks' record of performance demonstrates that it can no longer be depended upon to furnish pure water to the persons served; (ii) the owner has inadequate technical, financial, or managerial capacity to furnish pure water to the people served; (iii) the owner has failed to comply with an order issued by the board or the commissioner; (iv) the owner has abandoned the waterworks and has discontinued supplying pure water to the persons served; or (v) the owner is subject to a forfeiture order pursuant to § 32.1-174.1 of the Code of Virginia.

"Coagulation" means a process using coagulant chemicals and mixing by which colloidal and suspended materials are destabilized and agglomerated into floc.

"Coliform bacteria group" means a group of bacteria predominantly inhabiting the intestines of man or animal but also occasionally found elsewhere. It includes all aerobic and facultative anaerobic, gram-negative, non-sporeforming bacilli that ferment lactose with production of gas. Also included are all bacteria that produce a dark, purplish-green colony with metallic sheen by the membrane filter technique used for coliform identification.

"Combined distribution system" means the interconnected distribution system consisting of the distribution systems of wholesale waterworks and of the consecutive waterworks that receive finished water.

"Commissioner" means the State Health Commissioner.

"Community waterworks" means a waterworks that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

"Compliance cycle" means the nine-year calendar year cycle during which a waterworks shall monitor. Each compliance cycle consists of three three-year compliance periods. The first calendar year cycle begins January 1, 1993, and ends December 31, 2001; the second begins January 1, 2002, and ends December 31, 2010; the third begins January 1, 2011, and ends December 31, 2019.

"Compliance period" means a three-year calendar year period within a compliance cycle. Each compliance cycle has three three-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993, to December 31, 1995; the second from January 1, 1996, to December 31, 1998; the third from January 1, 1999, to December 31, 2001.

"Comprehensive performance evaluation" or "CPE" means a thorough review and analysis of a treatment plant's performance-based capabilities and associated administrative, operational and maintenance practices. It is conducted to identify factors that may be adversely impacting a plant's capability to achieve compliance and emphasizes approaches that can be implemented without significant capital improvements. For purposes of compliance with 12VAC5-590-530 ~~C~~ E 1 b (2), the comprehensive performance evaluation shall consist of at least the following components: assessment of plant performance, evaluation of major unit processes, identification and prioritization of performance limiting factors, assessment of the applicability of comprehensive technical assistance, and preparation of a CPE report.

"Confluent growth" means a continuous bacterial growth covering the entire filtration area of a membrane filter, or a portion thereof, in which bacterial colonies are not discrete.

"Consecutive waterworks" means a waterworks that has no water production or source facility of its own and that obtains all of its water from another permitted waterworks or receives some or all of its finished water from one or more wholesale waterworks. Delivery may be through a direct connection or through the distribution system of one or more consecutive waterworks.

"Consumer" means any person who drinks water from a waterworks.

"Consumer's water system" means any water system located on the consumer's premises, supplied by or in any manner connected to a waterworks.

"Contaminant" means any objectionable or hazardous physical, chemical, biological, or radiological substance or matter in water.

"Conventional filtration treatment" means a series of processes including coagulation, flocculation, sedimentation, and filtration resulting in substantial particulate removal.

"Corrosion inhibitor" means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

"Cross connection" means any connection or structural arrangement, direct or indirect, to the waterworks whereby backflow can occur.

"CT" or "CT_{calc}" means the product of "residual disinfectant concentration" (C) in mg/L determined before or at the first customer, and the corresponding "disinfectant contact time" (T) in minutes (i.e., "C" x "T").

"Daily fluid intake" means the daily intake of water for drinking and culinary use and is defined as two liters.

"Dechlorination" means the partial or complete reduction of residual chlorine in water by any chemical or physical process at a waterworks with a treatment facility.

"Degree of hazard" means the level of health hazard, as derived from an evaluation of the potential risk to health and the adverse effect upon the waterworks.

"Diatomaceous earth filtration" means a process resulting in substantial particulate removal in which (i) a precoat cake of diatomaceous earth filter media is deposited on a support membrane (septum), and (ii) while the water is filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the filter cake.

"Direct filtration" means a series of processes including coagulation and filtration but excluding sedimentation resulting in substantial particulate removal.

"Disinfectant" means any oxidant (including chlorine) that is added to water in any part of the treatment or distribution process for the purpose of killing or deactivating pathogenic organisms.

"Disinfectant contact time" ("T" in CT calculations) means the time in minutes that it takes for water to move from the point of disinfectant application to the point where residual disinfectant concentration ("C") is measured.

"Disinfection" means a process that inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

"Disinfection profile" means a summary of Giardia lamblia or virus inactivation through the treatment plant.

"Distribution main" means a water main whose primary purpose is to provide treated water to service connections.

"District engineer" means the employee assigned by the Commonwealth of Virginia, Department of Health, Office of Drinking Water to manage its regulatory activities in a

geographical area of the state consisting of a state planning district or subunit of a state planning district.

"Domestic or other nondistribution system plumbing problem" means a coliform contamination problem in a waterworks with more than one service connection that is limited to the specific service connection from which the coliform positive sample was taken.

"Double gate-double check valve assembly" means an approved assembly composed of two single independently acting check valves including tightly closing shutoff valves located at each end of the assembly and petcocks and test gauges for testing the watertightness of each check valve.

"Dual sample set" means a set of two samples collected at the same time and same location, with one sample analyzed for TTHM and the other sample analyzed for HAA5. Dual sample sets are collected for the purposes of conducting an initial distribution system evaluation (IDSE) under 12VAC5-590-370 B 3 e (2) and determining compliance with the TTHM and HAA5 MCLs under 12VAC5-590-370 B 3 e (3).

"Effective corrosion inhibitor residual" means, for the purpose of 12VAC5-590-405 A 1 only, a concentration sufficient to form a passivating film on the interior walls of a pipe.

"Enhanced coagulation" means the addition of sufficient coagulant for improved removal of disinfection byproduct precursors by conventional filtration treatment.

"Enhanced softening" means the improved removal of disinfection byproduct precursors by precipitative softening.

"Entry point" means the place where water from the source after application of any treatment is delivered to the distribution system.

"Equivalent residential connection" means a volume of water used equal to a residential connection that is 400 gallons per day unless supportive data indicates otherwise.

"Exception" means an approved deviation from a "shall" criteria contained in Part III (12VAC5-590-640 et seq.) of this chapter.

"Exemption" means a conditional waiver of a specific PMCL or treatment technique requirement that is granted to a specific waterworks for a limited period of time.

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

"Filtration" means a process for removing particulate matter from water by passage through porous media.

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

"First draw sample" means a one-liter sample of tap water, collected in accordance with 12VAC5-590-375 B 2, that has been standing in plumbing pipes at least six hours and is collected without flushing the tap.

"Flocculation" means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means.

"Flowing stream" means a course of running water flowing in a definite channel.

"Free available chlorine" means that portion of the total residual chlorine remaining in water at the end of a specified contact period that will react chemically and biologically as hypochlorous acid or hypochlorite ion.

"GAC10" means granular activated carbon filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days, except that the reactivation frequency for GAC10 used as a best available technology for compliance with 12VAC5-590-410 C 2 b (1) (b) shall be 120 days.

"GAC20" means granular activated carbon filter beds with an empty-bed contact time of 20 minutes based on average daily flow and a carbon reactivation frequency of every 240 days.

"Governmental entity" means the Commonwealth, a town, city, county, service authority, sanitary district, or any other governmental body established under the Code of Virginia, including departments, divisions, boards, or commissions.

"Gross alpha particle activity" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample.

"Gross beta particle activity" means the total radioactivity due to beta particle emission as inferred from measurements on a dry sample.

"Groundwater" means all water obtained from sources not classified as surface water (or surface water sources).

"Groundwater system" means any waterworks that uses groundwater as its source of supply; however, a waterworks that combines all its groundwater with surface water or with groundwater under the direct influence of surface water prior to treatment is not a groundwater system. Groundwater systems include consecutive waterworks that receive finished groundwater from a wholesale waterworks.

"Groundwater under the direct influence of surface water" or "GUDI" means any water beneath the surface of the ground with significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as Giardia lamblia, or Cryptosporidium. It also means significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH that

closely correlate to climatological or surface water conditions. The commissioner in accordance with 12VAC5-590-430 will determine direct influence of surface water.

"Haloacetic acids (five)" or "HAA5" means the sum of the concentrations in milligrams per liter of the haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to two significant figures after addition.

"Halogen" means one of the chemical elements chlorine, bromine, fluorine, astatine or iodine.

"Health hazard" means any condition, device, or practice in a waterworks or its operation that creates, or may create, a danger to the health and well-being of the water consumer.

"Health regulations" means regulations that include all primary maximum contaminant levels, treatment technique requirements, and all operational regulations, the violation of which would jeopardize the public health.

"Human consumption" means drinking, food preparation, dishwashing, bathing, showering, hand washing, teeth brushing, and maintaining oral hygiene.

"Hypochlorite" means a solution of water and some form of chlorine, usually sodium hypochlorite.

"Initial compliance period" means for all regulated contaminants, the initial compliance period is the first full three-year compliance period beginning at least 18 months after promulgation with the exception of waterworks with 150 or more service connections for contaminants listed at Table 2.3, VOC 19-21; Table 2.3, SOC 19-33; and antimony, beryllium, cyanide (as free cyanide), nickel, and thallium that shall begin January 1993.

"Interchangeable connection" means an arrangement or device that will allow alternate but not simultaneous use of two sources of water.

"Karst geology" means an area predominantly underlain by limestone, dolomite, or gypsum and characterized by rapid underground drainage. Such areas often feature sinkholes, caverns, and sinking or disappearing creeks. In Virginia, this generally includes all that area west of the Blue Ridge and, in Southwest Virginia, east of the Cumberland Plateau.

"Lake/reservoir" means a natural or manmade basin or hollow on the Earth's surface in which water collects or is stored that may or may not have a current or single direction of flow.

"Large waterworks" means, for the purposes of 12VAC5-590-375, 12VAC5-590-405, 12VAC5-590-530 ~~D~~ F, and 12VAC5-590-550 D only, a waterworks that serves more than 50,000 persons.

"Lead free" means the following:

1. When used with respect to solders and flux, refers to solders and flux containing not more than 0.2% lead;

2. When used with respect to pipes and pipe fittings, refers to pipes and pipe fittings containing not more than 8.0% lead;

3. When used with respect to plumbing fittings and fixtures intended by the plumbing manufacturer to dispense water for human ingestion, refers to fittings and fixtures that are in compliance with standards established in accordance with 42 USC § 300g-6(e).

"Lead service line" means a service line made of lead that connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting that is connected to such lead line.

"Legionella" means a genus of bacteria, some species of which have caused a type of pneumonia called Legionnaires disease.

"Level 1 assessment" means an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and, when possible, the likely reason that the waterworks triggered the assessment.

"Level 2 assessment" means an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and, when possible, the likely reason that the waterworks triggered the assessment in a more comprehensive investigation than a Level 1 assessment.

"Liquid chlorine" means a liquefied, compressed chlorine gas as shipped in commerce.

"Locational running annual average" or "LRAA" means the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

"Log inactivation (log removal)" means that a 99% reduction is a 2-log inactivation; a 99.9% reduction is a 3-log inactivation; a 99.99% reduction is a 4-log inactivation.

"Manmade beta particle and photon emitters" means all radionuclides emitting beta particles and/or photons listed in the most current edition of "Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure," National Bureau of Standards Handbook 69, except the daughter products of thorium-232, uranium-235 and uranium-238.

~~"Maximum daily water demand" means the rate of water usage during the day of maximum water use.~~

"Maximum contaminant level" or "MCL" means the maximum permissible level of a contaminant in pure water that is delivered to any user of a waterworks. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. MCLs may be either "primary" (PMCL), meaning based on health considerations, or "secondary" (SMCL) meaning based on aesthetic considerations.

"Maximum contaminant level goal" or "MCLG" means the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur and that allows an adequate margin of safety. Maximum contaminant level goals are nonenforceable health goals.

"Maximum daily water demand" means the rate of water usage during the day of maximum water use.

"Maximum residual disinfectant level" or "MRDL" means a level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. For chlorine and chloramines, a waterworks is in compliance with the MRDL when the running annual average of monthly averages of samples taken in the distribution system, computed quarterly, is less than or equal to the MRDL. For chlorine dioxide, a waterworks is in compliance with the MRDL when daily samples are taken at the entrance to the distribution system and no two consecutive daily samples exceed the MRDL. MRDLs are enforceable in the same manner as maximum contaminant levels. There is convincing evidence that addition of a disinfectant is necessary for control of waterborne microbial contaminants. Notwithstanding the MRDLs listed in Table 2.12, operators may increase residual disinfectant levels of chlorine or chloramines (but not chlorine dioxide) in the distribution system to a level and for a time necessary to protect public health to address specific microbiological contamination problems caused by circumstances such as distribution line breaks, storm runoff events, source water contamination, or cross-connections.

"Maximum residual disinfectant level goal" or "MRDLG" means the maximum level of a disinfectant added for water treatment at which no known or anticipated adverse effect on the health of persons would occur, and that allows an adequate margin of safety. MRDLGs are nonenforceable health goals and do not reflect the benefit of the addition of the chemical for control of waterborne microbial contaminants.

"Maximum total trihalomethane potential" or "MTP" means the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after seven days at a temperature of 25°C or above.

"Medium waterworks" means, for the purpose of 12VAC5-590-375 and 12VAC5-590-405 only, a waterworks that serves greater than 3,300 and less than or equal to 50,000 persons.

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

"Method detection limit" means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

"Most probable number" or "MPN" means that number of organisms per unit volume that, in accordance with statistical theory, would be more likely than any other number to yield the observed test result or that would yield the observed test result with the greatest frequency, expressed as density of organisms per 100 milliliters. Results are computed from the number of positive findings of coliform-group organisms resulting from multiple-portion decimal-dilution plantings.

"Noncommunity waterworks" means a waterworks that is not a community waterworks, but operates at least 60 days out of the year.

"Nonpotable water" means water not classified as pure water.

"Nontransient noncommunity waterworks" or "NTNC" means a waterworks that is not a community waterworks and that regularly serves at least 25 of the same persons over six months out of the year.

"Office" or "ODW" means the Commonwealth of Virginia, Department of Health, Office of Drinking Water.

"One hundred year flood level" means the flood elevation that will, over a long period of time, be equaled or exceeded on the average once every 100 years.

"Operator" means any individual employed or appointed by any owner, and who is designated by such owner to be the person in responsible charge, such as a supervisor, a shift operator, or a substitute in charge, and whose duties include testing or evaluation to control waterworks operations. Not included in this definition are superintendents or directors of public works, city engineers, or other municipal or industrial officials whose duties do not include the actual operation or direct supervision of waterworks.

"Optimal corrosion control treatment" means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps while ensuring that the treatment does not cause the waterworks to violate any other section of this chapter.

"Owner" or "water purveyor" means an individual, group of individuals, partnership, firm, association, institution, corporation, governmental entity, or the federal government that supplies or proposes to supply water to any person within this state from or by means of any waterworks (see Article 2 (§ 32.1-167 et seq.) of Chapter 6 of Title 32.1 of the Code of Virginia).

"Picocurie" or "pCi" means that quantity of radioactive material producing 2.22 nuclear transformations per minute.

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

"Point of disinfectant application" means the point where the disinfectant is applied and water downstream of that point is not subject to recontamination by surface water runoff.

"Point-of-entry treatment device" or "POE device" means a treatment device applied to the water entering a house or building for the purpose of reducing contaminants in the water distributed throughout the house or building.

"Point-of-use treatment device" or "POU device" means a treatment device applied to a single tap for the purpose of reducing contaminants in the water at that one tap.

"Pollution" means the presence of any foreign substance (chemical, physical, radiological, or biological) in water that tends to degrade its quality so as to constitute an unnecessary risk or impair the usefulness of the water.

"Pollution hazard" means a condition through which an aesthetically objectionable or degrading material may enter the waterworks or a consumer's water system.

"Postchlorination" means the application of chlorine to water subsequent to treatment.

"Potable water" – see "Pure water."

"Practical quantitation level" or "PQL" means the lowest level achievable by good laboratories within specified limits during routine laboratory operating conditions.

"Prechlorination" means the application of chlorine to water prior to filtration.

"Presedimentation" means a preliminary treatment process used to remove gravel, sand and other particulate material from the source water through settling before the water enters the primary clarification and filtration processes in a treatment plant.

"Process fluids" means any fluid or solution that may be chemically, biologically, or otherwise contaminated or polluted that would constitute a health, pollutional, or system hazard if introduced into the waterworks. This includes, but is not limited to:

1. Polluted or contaminated water;

2. Process waters;

3. Used waters, originating from the waterworks that may have deteriorated in sanitary quality;

4. Cooling waters;

5. Contaminated natural waters taken from wells, lakes, streams, or irrigation systems;

6. Chemicals in solution or suspension; and

7. Oils, gases, acids, alkalis, and other liquid and gaseous fluid used in industrial or other processes, or for firefighting purposes.

"Pure water" means water fit for human consumption that is (i) sanitary and normally free of minerals, organic substances, and toxic agents in excess of reasonable amounts and (ii) adequate in quantity and quality for the minimum health requirements of the persons served (see Article 2 (§ 32.1-167 et seq.) of Chapter 6 of Title 32.1 of the Code of Virginia).

"Raw water main" means a water main that conveys untreated water from a source to a treatment facility.

"Reduced pressure principle backflow prevention device" or "RPZ device" means a device containing a minimum of two independently acting check valves together with an automatically operated pressure differential relief valve located between the two check valves. During normal flow and at the cessation of normal flow, the pressure between these two checks shall be less than the supply pressure. In case of leakage of either check valve, the differential relief valve, by discharging to the atmosphere, shall operate to maintain the pressure between the check valves at less than the supply pressure. The unit shall include tightly closing shutoff valves located at each end of the device, and each device shall be fitted with properly located test cocks. These devices shall be of the approved type.

"REM" means the unit of dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A millirem (MREM) is 1/1000 of a REM.

"Repeat compliance period" means any subsequent compliance period after the initial compliance period.

"Residual disinfectant concentration" ("C" in CT Calculations) means the concentration of disinfectant measured in mg/L in a representative sample of water.

"Responsible charge" means designation by the owner of any individual to have duty and authority to operate or modify the operation of waterworks processes.

"Sanitary facilities" means piping and fixtures, such as sinks, lavatories, showers, and toilets, supplied with potable water and drained by wastewater piping.

"Sanitary defect" means a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a protective barrier that is already in place.

"Sanitary survey" means an evaluation conducted by ODW of a waterworks' water supply, facilities, equipment, operation, maintenance, monitoring records, and overall management of a waterworks to ensure the provision of pure water.

"Seasonal waterworks" means a noncommunity waterworks that is not operated as a waterworks on a year-round basis, and starts up and shuts down at the beginning and end of each operating season.

"Secondary water source" means any approved water source, other than a waterworks' primary source, connected to or available to that waterworks for emergency or other nonregular use.

"Sedimentation" means a process for removal of solids before filtration by gravity or separation.

"Service connection" means the point of delivery of water to a customer's building service line as follows:

1. If a meter is installed, the service connection is the downstream side of the meter;

2. If a meter is not installed, the service connection is the point of connection to the waterworks;

3. When the water purveyor is also the building owner, the service connection is the entry point to the building.

"Service line sample" means a one-liter sample of water, collected in accordance with 12VAC5-590-375 B 2 c, that has been standing for at least six hours in a service line.

"Sewer" means any pipe or conduit used to convey sewage or industrial waste streams.

"Significant deficiency" means any defect in a waterworks' design, operation, maintenance, or administration, as well as the failure or malfunction of any waterworks component, that may cause, or has the potential to cause, an unacceptable risk to health or could affect the reliable delivery of pure water to consumers.

"Single-family structure" means, for the purpose of 12VAC5-590-375 B only, a building constructed as a single-family residence that is currently used as either a residence or a place of business.

"Slow sand filtration" means a process involving passage of raw water through a bed of sand at low velocity (generally less than 0.4 m/h) resulting in substantial particulate removal by physical and biological mechanisms.

"Small waterworks" means, for the purpose of 12VAC5-590-375, 12VAC5-590-405, 12VAC5-590-530 ~~D~~ F and 12VAC5-590-550 D only, a waterworks that serves 3,300 persons or fewer.

"Standard sample" means that portion of finished drinking water that is examined for the presence of coliform bacteria.

"Surface water" means all water open to the atmosphere and subject to surface runoff.

"SUVA" means specific ultraviolet absorption at 254 nanometers (nm), an indicator of the humic content of water. It is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of 254 nm (UV_{254}) (in m-1) by its concentration of dissolved organic carbon (DOC) (in mg/L).

"Synthetic organic chemicals" or "SOC" means one of the family of organic manmade compounds generally utilized for agriculture or industrial purposes.

"System hazard" means a condition posing an actual, or threat of, damage to the physical properties of the waterworks or a consumer's water system.

"Terminal reservoir" means an impoundment providing end storage of water prior to treatment.

"Too numerous to count" means that the total number of bacterial colonies exceeds 200 on a 47-mm diameter membrane filter used for coliform detection.

"Total effective storage volume" means the volume available to store water in distribution reservoirs measured as the difference between the reservoir's overflow elevation and the minimum storage elevation. The minimum storage elevation is that elevation of water in the reservoir that can provide a minimum pressure of 20 psi at a flow as determined in 12VAC5-590-690 C to the highest elevation served within that reservoir's service area under systemwide maximum daily water demand.

"Total organic carbon" or "TOC" means total organic carbon in mg/L measured using heat, oxygen, ultraviolet irradiation, chemical oxidants, or combinations of these oxidants that convert organic carbon to carbon dioxide, rounded to two significant figures.

"Total trihalomethanes" or "TTHM" means the sum of the concentrations of the trihalomethanes expressed in milligrams per liter (mg/L) and rounded to two significant figures. For the purpose of these regulations, the TTHMs shall mean trichloromethane (chloroform), dibromochloromethane, bromodichloromethane, and tribromomethane (bromoform).

"Transient noncommunity waterworks" or "TNC" means a noncommunity waterworks that is not a nontransient noncommunity waterworks. A TNC serves at least 25 persons daily for at least 60 days out of the year.

"Transmission main" means a water main whose primary purpose is to move significant quantities of treated water among service areas.

"Treatment technique requirement" means a requirement that specifies for a contaminant a specific treatment technique(s) demonstrated to the satisfaction of the division to lead to a reduction in the level of such contaminant sufficient to comply with these regulations.

"Triggered source water monitoring" means monitoring required of any groundwater system as a result of a total coliform-positive sample in the distribution system.

"Trihalomethane" or "THM" means one of the family of organic compounds, named as derivatives of methane, wherein three of the four hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.

"Two-stage lime softening" means a process in which chemical addition and hardness precipitation occur in each of two distinct unit clarification processes in series prior to filtration.

"Uncovered finished water storage facility" means a tank, reservoir, or other facility used to store water that will undergo no further treatment to reduce microbial pathogens (except residual disinfection) and is directly open to the atmosphere.

"Unregulated contaminant" or "UC" means a contaminant for which a monitoring requirement has been established, but

for which no MCL or treatment technique requirement has been established.

"Used water" means any water supplied by a water purveyor from the waterworks to a consumer's water system after it has passed through the service connection.

"Variance" means a conditional waiver of a specific regulation that is granted to a specific waterworks. A PMCL ~~Variance~~ variance is a variance to a ~~Primary Maximum Contaminant Level~~ primary maximum contaminant level, or a treatment technique requirement. An ~~Operational Variance~~ operational variance is a variance to an operational regulation or a ~~Secondary Maximum Contaminant Level~~ secondary maximum contaminant level. Variances for monitoring, reporting and public notification requirements will not be granted.

"Virus" means a microbe that is infectious to humans by waterborne transmission.

"Volatile synthetic organic chemical" or "VOC" means one of the family of manmade organic compounds generally characterized by low molecular weight and rapid vaporization at relatively low temperatures or pressures.

"Waterborne disease outbreak" means the significant occurrence of acute infectious illness, epidemiologically associated with the ingestion of water from a waterworks that is deficient in treatment, as determined by the commissioner or the State Epidemiologist.

"Water purveyor" (same as owner).

"Water supply" means water that shall have been taken into a waterworks from all wells, streams, springs, lakes, and other bodies of surface waters (natural or impounded), and the tributaries thereto, and all impounded groundwater, but the term "water supply" shall not include any waters above the point of intake of such waterworks (see Article 2 (§ 32.1-167 et seq.) of Chapter 6 of Title 32.1 of the Code of Virginia).

"Water supply main" or "main" means any water supply pipeline that is part of a waterworks distribution system.

"Water Well Completion Report" means a report form published by the State Water Control Board entitled "Water Well Completion Report," which requests specific information pertaining to the ownership, driller, location, geological formations penetrated, water quantity and quality encountered as well as construction of water wells. The form is to be completed by the well driller.

"Waterworks" means a system that serves piped water for human consumption to at least 15 service connections or 25 or more individuals for at least 60 days out of the year. "Waterworks" includes all structures, equipment, and appurtenances used in the storage, collection, purification, treatment, and distribution of pure water except the piping and fixtures inside the building where such water is delivered (see Article 2 (§ 32.1-167 et seq.) of Chapter 6 of Title 32.1 of the Code of Virginia).

"Waterworks with a single service connection" means a waterworks that supplies drinking water to consumers via a single service line.

"Wholesale waterworks" means a waterworks that treats source water as necessary to produce finished water and then delivers some or all of that finished water to another waterworks. Delivery may be through a direct connection or through the distribution system of one or more consecutive waterworks.

12VAC5-590-140. Variances.

A. The commissioner may grant a variance to a primary maximum contaminant level (PMCL), a treatment technique requirement, an operational regulation, or a secondary maximum contaminant level (SMCL) by following the appropriate procedures set forth in this section.

1. Requirements for a variance. A PMCL variance may be granted to a waterworks from any requirement respecting a PMCL upon a finding that:

a. Alternative sources of water are not reasonably available to the waterworks;

b. The characteristics of the raw water sources which are reasonably available to the waterworks prevent the waterworks from meeting the PMCL requirements and on condition that the waterworks installs the best available technology, treatment techniques, or other means, which the commissioner finds are generally available (taking costs into consideration); and

c. The granting of a variance will not result in an unreasonable risk to the health of persons served by the waterworks.

2. The commissioner may grant a treatment technique variance from any requirement of a specified treatment technique upon a finding that the waterworks applying for the variance has demonstrated that such treatment technique is not necessary to protect the health of persons because of the nature of the raw water source of such waterworks.

3. The commissioner may grant a variance from an operational regulation or a SMCL if a thorough investigation reveals that the hardship imposed outweighs the benefits that may be received by the public and that the granting of such variance does not subject the public to unreasonable health risks. An operational variance may not be issued from monitoring, reporting, or public notification requirements.

B. Application for a variance. Any owner may apply in writing for a variance. The application should be sent to the appropriate field office for evaluation. All applications for a variance shall include the following:

1. A citation of the regulation from which a variance is requested;

2. The nature and duration of the variance requested;

3. Relevant analytical results of water quality sampling of the waterworks, including results of relevant tests conducted pursuant to the requirements of this chapter;

4. A statement of the hardship to the owner and the anticipated impacts to the public health and welfare if a variance were granted;

5. Suggested conditions that might be imposed on the granting of a variance that would limit its detrimental impact on public health and welfare;

6. Other information, if any, believed by the applicant to be pertinent to the application; and

7. Such other information as may be required by the commissioner to make the determination.

8. For any application made for a PMCL variance, the applicant shall also include;

a. Explanation in full and evidence of the best available treatment technology and techniques;

b. Economic and legal factors relevant to ability to comply;

c. Analytical results of raw water quality relevant to the variance request;

d. A proposed compliance schedule including the date each step toward compliance will be achieved. Such schedule shall include as a minimum the following dates:

(1) Date by which arrangement for alternative raw water source or improvement of existing raw water source will be completed;

(2) Date of initiation of the connection of the alternative raw water source or improvement of existing raw water source; and

(3) Date by which final compliance is to be achieved.

e. A plan for the provision of safe drinking water in the case of an excessive rise in the contaminant level for which the variance is requested; and

f. A plan for interim control measures during the effective period of the variance.

9. For any application made for a treatment technique variance, the applicant must also include a statement that monitoring and other reasonable requirements prescribed by the commissioner as a condition to the variance will be performed.

C. Consideration of a variance application.

1. The commissioner shall act on any variance application submitted pursuant to subsection B of this section within 90 days of receipt of the application.

2. In the commissioner's consideration of whether the waterworks is unable to comply with a contaminant level required by this chapter (PMCL variance) because of the nature of the raw water source, the commissioner shall consider such factors as the following:

a. The availability and effectiveness of treatment methods for which the variance is requested.

b. Cost and other economic considerations such as implementing treatment, improving the quality of the source water, or using an alternate source.

3. In the commissioner's consideration of whether a waterworks should be granted a variance to a required treatment technique because such treatment is unnecessary to protect the public health (treatment technique variance), the commissioner shall consider such factors as the following:

a. Quality of the water source including water quality data and pertinent sources of pollution.

b. Source protection measures employed by the waterworks.

4. In the commissioner's consideration of whether waterworks should be granted a variance to a required operational procedure or SMCL (operational variance), the commissioner shall consider such factors as the following:

a. The effect that such a variance would have on the adequate operation of the waterworks, including operator safety (in accordance with Virginia Occupational Safety and Health laws).

b. The cost and other economic considerations imposed by this requirement.

c. The effect that such a variance would have on the protection of the public health.

D. Disposition of a variance application.

1. The commissioner may reject any application for a variance by sending a rejection notice to the applicant. The rejection notice shall be in writing and shall state the reasons for the rejection. A rejection notice constitutes a case decision. The applicant has the right to petition for a hearing within 60 days of the date of the rejection to challenge the rejection pursuant to 12VAC5-590-160 and 12VAC5-590-180.

2. If the commissioner grants the variance, the applicant shall be notified in writing of this decision. Such notice shall identify the variance, the waterworks covered, and shall specify the period of time for which the variance will be effective.

a. For a PMCL variance as specified in subdivision A 1 of this section, such notice shall provide that the variance will be terminated when the waterworks comes into compliance with the applicable regulation and may be terminated upon a finding by the commissioner that the waterworks has failed to comply with any requirements of a final schedule issued pursuant to subdivision D 3 of this section.

b. For a treatment technique variance as specified in subdivision A 2 of this section, such notice shall provide that the variance may be terminated at any time upon a

finding by the commissioner that the nature of the raw water source is such that the specified treatment technique for which the variance was granted is necessary to protect the public health or upon a finding that the waterworks has failed to comply with monitoring and other requirements prescribed by the commissioner as a condition to the granting of the variance.

c. For an operational variance as specified in subdivision A 3 of this section, such notice shall provide that the variance will be terminated when the waterworks comes into compliance with the applicable regulation and may be terminated upon a finding by the commissioner that the waterworks has failed to comply with any requirements or schedules issued in conjunction with the variance. The effective date of the operational variance shall be the date of its issuance. A public hearing is not required before the issuance of an operational variance.

3. Schedules pursuant to PMCL and treatment technique variances:

a. The proposed schedule for compliance shall specify dates by which steps towards compliance are to be taken, including where applicable:

(1) Date by which arrangement for an alternative water source or improvement of existing raw water source will be completed.

(2) Date of connection to the alternative raw water source or improvement of the existing raw water source.

(3) Date by which final compliance is to be achieved.

b. If the waterworks has no access to an alternative raw water source and can effect or anticipate no adequate improvement of the existing raw water source, the proposed schedule may specify an indefinite time period for compliance until a new and effective treatment technology is developed, at which time a new compliance schedule shall be prescribed by the commissioner.

c. The schedule for implementation of interim control measures during the period of variance shall specify interim treatment techniques, methods, and equipment and dates by which steps toward meeting the interim control measures are to be met.

d. The schedule shall be prescribed by the commissioner at the time the variance is granted.

e. For a PMCL variance specified in subdivision A 1 of this section the commissioner shall propose a schedule for:

(1) Compliance (including increments of progress) by the waterworks with each contaminant level requirement covered by the variance; and

(2) Implementation by the waterworks of such control measures as the commissioner may require for each contaminant level covered by the variance.

E. Public hearings on PMCL and treatment technique variances and their schedules.

1. Notice of a public hearing shall be provided before a variance and schedule proposed by the commissioner pursuant to subsection D of this section may take effect. A notice given pursuant to the preceding sentence may cover the granting of more than one variance and a public hearing held pursuant to such notice shall include each of the variances covered by the notice.

2. Notice of a public hearing on an application for a variance and its schedule shall be advertised in at least one major newspaper of general circulation in the region in which the waterworks is located. The notice shall include a summary of the proposed variance and its schedule and shall contain the time, date, and place of the public hearing. If the schedule exceeds five years from the date of the variance, the rationale for the extended compliance schedule shall be discussed in the notice.

F. Issuance of variance.

1. Within 30 days after the public hearing, the commissioner shall, taking into consideration information obtained during such hearing, revise the proposed variance as necessary and prescribe the final schedule for compliance and interim measures for the waterworks granted a variance. If the schedule for compliance exceeds five years from the date of issuance of the variance, the commissioner shall document the rationale for the extended compliance schedule.

2. Such schedule shall establish the timetable by which the waterworks shall comply with each contaminant level and treatment technique requirement prescribed by this chapter. Such schedule shall also consider if the waterworks is to become part of a regional waterworks. Such schedule shall provide the shortest practicable time schedule under the circumstances.

G. Posting of variances. All variances granted to any waterworks are nontransferable. Each variance must be attached to the permit of the waterworks to which it is granted. Each variance is a condition to that permit and is revoked when the permit is revoked.

H. No variances shall be granted to ~~the following sections of this chapter~~ 12VAC5-590-380, 12VAC5-590-400, or 12VAC5-590-420.

~~1. 12VAC5-590-380 — acteriological quality; provided, however, that the commissioner may grant a variance to a waterworks owner that demonstrates that the violation of the total coliform PMCL is due solely to either 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.~~

~~2. 12VAC5-590-400 — Radiological quality.~~

12VAC5-590-150. Exemptions.

A. The commissioner may grant an exemption to any primary maximum contaminant level (PMCL) or treatment technique requirement by following the procedures set forth in this subsection. An exemption may be granted to a waterworks from any requirement with respect to a PMCL or treatment technique requirement upon a finding that:

1. The waterworks must be unable to implement measures to develop an alternative source of water supply;

2. The waterworks cannot reasonably make management or restructuring changes that will result in compliance or improve the quality of the drinking water;

3. Due to compelling factors (which may include economic factors), the waterworks is unable to comply with such contaminant level or treatment technique requirement;

4. The granting of the exemption will not result in an unreasonable risk to the health of persons served by the waterworks;

5. The waterworks was in operation on the effective date of such contaminant level or treatment technique requirement; and

6. The waterworks has not been granted a variance.

B. Application for exemption. A waterworks owner may request an exemption for a waterworks by submitting a written application to the appropriate field office for evaluation. All applications for an exemption shall include the following information:

1. A citation to the regulation from which the exemption is requested;

2. Nature and duration of the exemption requested;

3. Relevant analytical results of water quality sampling of the waterworks, including results of relevant tests conducted pursuant to the requirements of this chapter;

4. Explanation of the compelling factors such as time or economic factors which prevent such waterworks from achieving compliance;

5. Other information believed by the applicant to be pertinent to the application;

6. A proposed compliance schedule, including the date when each step toward compliance will be achieved; and

7. Such other information as may be required by the commissioner to make the determination.

C. Consideration of an exemption application.

1. The commissioner shall act on any exemption application submitted pursuant to subsection B of this section within 90 days of receipt of the application.

2. In the commissioner's consideration of whether the waterworks is unable to comply due to compelling factors, the commissioner shall consider such factors as the following:

a. Construction, installation, or modification of treatment equipment or systems;

b. The time needed to put into operation a new treatment facility to replace an existing waterworks which is not in compliance;

c. The economic feasibility of compliance;

d. The availability of Drinking Water State Revolving Fund assistance or any other federal or state program that is reasonably likely to be available within the period of the exemption;

e. The consideration of rate increases, accounting changes, the appointment of a licensed operator under the state operator's licensure program, or contractual agreements for joint operation with one or more waterworks;

f. The activities consistent with Virginia's capacity development strategy to help the waterworks acquire and maintain technical, financial, and managerial capacity to come into compliance;

g. The ownership changes, physical consolidation with another waterworks, or other feasible and appropriate means of consolidation that would result in compliance; and

h. The availability of an alternative source of drinking water, including the feasibility of partnerships with neighboring waterworks, as identified by the waterworks or by the commissioner consistent with the capacity development strategy.

D. Disposition of an exemption application.

1. The commissioner may reject any application for an exemption by sending a rejection notice to the applicant. The rejection notice shall be in writing and shall state the reasons for the rejection. A rejection notice constitutes a case decision. The applicant has the right to petition for a hearing within 60 days of the date of the rejection to challenge the rejection pursuant to 12VAC5-590-160 and 12VAC5-590-180.

2. If the commissioner grants the exemption, the applicant shall be notified in writing of this decision. Such notice shall identify the exemption~~,~~ and the waterworks covered~~,~~ and shall specify the termination date of the exemption. Such notice shall provide that the exemption shall be terminated when the waterworks comes into compliance with the applicable regulation~~,~~ and may be terminated upon a finding by the commissioner that the waterworks has failed to comply with any requirements of a final schedule issued pursuant to subsection F of this section.

3. The commissioner shall propose a schedule for:

a. Compliance (including increments of progress) by the waterworks with each contaminant level and treatment technique requirement covered by the exemption; and

b. Implementation by the waterworks of such control measures as the commissioner may require for each contaminant level and treatment technique requirement covered by the exemption.

4. The schedule shall be prescribed by the commissioner at the time the exemption is granted.

5. For a waterworks that ~~serve~~ serves a population of not more than 3,300 persons and that needs financial assistance for the necessary improvements under the initial compliance schedule, an exemption granted by the commissioner may be for one or more additional two-year periods, but not to exceed a total of six additional years, only if the commissioner establishes that the waterworks is taking all practicable steps to meet the requirements of the exemption and the established compliance period. The commissioner will document the findings in granting an extension under this subdivision.

E. Public hearings on exemptions and their schedules.

1. Notice of a public hearing shall be provided before an exemption and schedule proposed by the commissioner pursuant to subsection D of this section may take effect. A notice given pursuant to the preceding sentence may cover the granting of more than one exemption and a public hearing held pursuant to such notice shall include each of the exemptions covered by the notice.

2. Notice of a public hearing on an application for an exemption and its schedule shall be advertised in at least one major newspaper of general circulation in the region in which the waterworks is located.

3. The notice shall include a summary of the proposed exemption and its schedule and shall contain the time, date, and place of the public hearing.

F. Issuance of exemption.

1. Within 30 days after the public hearing, the commissioner shall, taking into consideration information obtained during such hearing, revise the proposed exemption as necessary and prescribe the final schedule for compliance and interim measures for the waterworks granted an exemption.

2. Such schedule shall establish the timetable by which the waterworks shall comply with each contaminant level and treatment technique requirement prescribed by this chapter. If the schedule for compliance exceeds five years from the date of issuance of the exemption, the commissioner shall document the rationale for the extended compliance period. Such schedule shall also consider if the waterworks is to become part of a regional waterworks.

G. Posting of exemptions. All exemptions granted to any waterworks are nontransferable. Each exemption must be attached to the permit of the waterworks to which it is granted. Each exemption is a condition to that permit and is revoked when the permit is revoked.

H. No exemption shall be granted to ~~the following sections of this chapter:~~ 12VAC5-590-380, 12VAC5-590-400, or 12VAC5-590-420 B 1 b.

~~1. 12VAC5-590-380 — Bacteriological quality; provided, however, that the commissioner may grant an exemption to a waterworks owner that demonstrates to the commissioner that the violation of the total coliform PMCL is due solely to either 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.~~

~~2. 12VAC5-590-400 — Radiological quality.~~

~~3. 12VAC5-590-420 B 1 b — Residual disinfectant concentration.~~

12VAC5-590-350. Sanitary surveys.

A. Frequent assessments shall be made by the owner of the water supply source and waterworks to locate and identify health hazards to the waterworks. The manner and frequency of making these assessments, and the rate at which discovered health hazards are to be removed, shall be the responsibility of the owner. Every effort shall be made by the owner, to the extent of his jurisdiction, to prevent the degradation of the quality of water supply sources.

B. The commissioner may perform sanitary surveys. Owners shall provide any existing information that will enable the commissioner to conduct the sanitary survey.

C. A sanitary survey includes, but is not limited to, an onsite evaluation of all of the following eight components:

1. Source;

2. Treatment;

3. Distribution system;

4. Finished water storage;

5. Pumps, pumping facilities, and controls;

6. Monitoring, reporting, ~~and~~ data verification, and a special monitoring evaluation during each sanitary survey to determine whether the waterworks monitoring is appropriate or needs modification;

7. Waterworks management and operation; and

8. Number and classification of licensed operator(s) required in 12VAC5-590-460. Licensed operators shall also comply with all applicable regulations promulgated by the Virginia Board for ~~Water Works~~ Waterworks and Wastewater Works Operators and Onsite Sewage System Professionals, Department of Professional and Occupational Regulation.

D. Significant deficiencies discovered as a result of a sanitary survey shall be addressed in accordance with the following:

1. The commissioner shall issue written notification describing the significant deficiency to the owner.

2. Within 30 days of the significant deficiency notification, the owner shall consult with the commissioner regarding the appropriate corrective action with a schedule for implementing corrective action. Any waterworks with significant deficiencies must have a Corrective Action Plan (CAP) as described in 12VAC5-590-421 A.

3. Within 45 days of the significant deficiency notification, the owner shall submit a CAP with a schedule for meeting the requirements of 12VAC5-590-421 A.

Article 2
General Information

12VAC5-590-370. Sampling frequency.

The commissioner may exempt consecutive waterworks that obtain potable water from another water system for distribution from all monitoring requirements in this section except for bacteriological (subsection A of this section)~~,~~; disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors (subdivision B 3 of this section)~~,~~; and lead and copper ~~(subdivision B 6 of this section)~~ (12VAC5-590-375). The required sampling frequencies are as follows:

A. Bacteriological.

1. The owner shall collect total coliform samples at ~~sites which are representative of water throughout the distribution system according to a written sample siting report~~ specific sites and according to a schedule that is representative of water quality throughout the distribution system, which shall be documented in a written bacteriological sample siting plan (BSSP). The ~~report~~ BSSP shall be established or approved by the ~~district engineer~~ commissioner after investigation of the source, method of treatment and storage, and protection of the water concerned. The ~~report~~ BSSP shall include, but is not limited to, the following:

a. ~~The frequency of sampling distributed evenly throughout the month/quarter~~ Specific routine, repeat, and triggered source water monitoring sites, identified by address or location.

b. Distribution map showing the ~~generalized~~ location where specific sampling sites will be selected with all monitoring sites identified.

~~c. Supporting statement explaining how specific individual sites are selected, how sampling will be rotated among the sites, how repeat samples will be collected and other information demonstrating that sampling will be conducted in a manner to comply with this chapter.~~

~~d. Adequate sampling points to provide sampling representative of all the conditions in the system.~~

~~e. For small systems (less than 3,301 population), sample sites shall also be identified by address and code number location.~~

~~f. Minimum of three sample locations for each sample required monthly so repeat sample locations are previously ascertained as being adequate in number and five customer service connections upstream and downstream. (See Appendix J for an example.)~~

c. A minimum of three routine sample sites identified for each required routine sample for waterworks serving 3,300 or fewer people.

d. Sample collection schedule with the number of routine samples required per monitoring period in accordance with Table 2.1 and subdivision A 4 of this section.

e. Repeat sample sites for each routine sample site that shall include the original routine location, at least one tap within five service connections upstream, and at least one tap within five service connections downstream with the following exceptions:

(1) Alternative repeat sample sites may be allowed when a routine site is one connection away from or at the end of a water supply main or as approved by the commissioner;

(2) Groundwater waterworks serving 1,000 or fewer people may propose repeat sample sites, such as entry point to the distribution system, that differentiate potential source water and distribution system contamination;

(3) Groundwater waterworks serving 1,000 or fewer people with a single well source and no treatment may propose that one repeat sample be collected at the triggered source water monitoring site, provided that representative sampling of the distribution system is still achieved.

~~g. The sampling point required to be repeat sampled~~ f. A repeat sampling site shall not be eliminated from future collections solely based on a history of questionable water quality unless the sampling point is unacceptable as determined by the ~~district engineer~~ commissioner.

g. A seasonal waterworks may collect special samples in accordance with an approved start-up procedure pursuant to subdivision A 10 a of this section.

2. The minimum number of bacteriological samples for total coliform evaluation to be collected and analyzed monthly from the distribution system of a community or nontransient noncommunity waterworks shall be in accordance with Table 2.1. Owners of all (i) transient noncommunity waterworks that use a surface water source or a groundwater source under the direct influence of surface water~~,~~ and (ii) large transient noncommunity (serving 1,000 or more persons per day) waterworks~~,~~ shall collect and submit samples monthly for analysis in accordance with Table 2.1. Owners of all other transient noncommunity waterworks shall collect and submit samples for analysis each calendar quarter in accordance with Table 2.1. The minimum number of samples must be

collected and submitted even if the waterworks has exceeded the E. coli PMCL or the total coliform treatment technique triggers.

3. The samples shall be taken at reasonably evenly spaced time intervals throughout the month ~~or quarter~~, except that waterworks that use only groundwater serving 4,900 or fewer people may collect all required samples on a single day if the samples are taken from different sites.

4. If the results of a sanitary survey or other factors determine that some other frequency is more appropriate than that stated ~~above~~ in subdivisions A 3 and A 4 of this section, a modified ~~sampling program report~~ BSSP may be required. The altered frequency shall be confirmed or changed on the basis of subsequent sanitary surveys or as otherwise determined by the commissioner.

5. An owner may conduct more compliance monitoring than is required by this section to investigate potential problems in the distribution system and to assist in uncovering problems. An owner may take more than the minimum number of required routine samples. If the samples are taken in accordance with the existing BSSP and are representative of water quality throughout the distribution system, then all of the results shall be included in determining whether a coliform treatment technique has been triggered.

6. An owner may propose repeat monitoring locations believed to be representative of a pathway for contamination of the distribution system. An owner may elect to specify either alternative fixed locations or criteria for selecting repeat sampling sites on a situational basis in a standard operating procedure (SOP) in its BSSP. The owner shall design the SOP to focus on the collection of repeat samples at locations that best verify and determine the extent of potential contamination of the distribution system area based on specific situations. The commissioner shall require modifications to the SOP or require alternative monitoring locations as needed.

TABLE 2.1

Bacteriological Monitoring

POPULATION SERVED PER DAY	MINIMUM NUMBER OF SAMPLES (See subdivision A 2 of this section)
25 to 1,000	1
1,001 to 2,500	2
2,501 to 3,300	3
3,301 to 4,100	4
4,101 to 4,900	5
4,901 to 5,800	6
5,801 to 6,700	7
6,701 to 7,600	8
7,601 to 8,500	9
8,501 to 12,900	10
12,901 to 17,200	15
17,201 to 21,500	20
21,501 to 25,000	25
25,001 to 33,000	30
33,001 to 41,000	40
41,001 to 50,000	50
50,001 to 59,000	60
59,001 to 70,000	70
70,001 to 83,000	80
83,001 to 96,000	90
96,001 to 130,000	100
130,001 to 220,000	120
220,001 to 320,000	150
320,001 to 450,000	180
450,001 to 600,000	210
600,001 to 780,000	240
780,001 to 970,000	270
970,001 to 1,230,000	300
1,230,001 to 1,520,000	330
1,520,001 to 1,850,000	360
1,850,001 to 2,270,000	390
2,270,001 to 3,020,000	420
3,020,001 to 3,960,000	450
3,960,001 or more	480

~~4.~~ 7. All bacteriological analyses shall be performed in accordance with 12VAC5-590-440 by the ~~DCLS~~ Division of Consolidated Laboratory Services (DCLS) or by a laboratory certified by DCLS for drinking water samples.

8. Increased monitoring. A transient noncommunity waterworks on quarterly monitoring shall begin monthly monitoring in the month following an event if any of the following were to occur: (i) the waterworks triggers a Level 2 assessment or two Level 1 assessments under the provisions of 12VAC5-590-392 in a rolling 12-month period, (ii) the waterworks has an E. coli PMCL violation, (iii) the waterworks has a coliform treatment technique violation, (iv) the owner has two monitoring violations

under 12VAC5-590-370 A 2, or (v) the owner has one monitoring violation under 12VAC5-590-370 A 2 and one Level 1 assessment under 12VAC5-590-392 in a rolling 12-month period. Owners shall continue monthly monitoring until the requirements in subdivisions A 9 a and A 9 b of this section are met. A waterworks on monthly monitoring for other reasons is not considered to be on increased monitoring for the purpose of this subdivisions.

9. Returning to routine monitoring. The commissioner may return the monitoring frequency of a transient noncommunity waterworks using groundwater to quarterly monitoring if:

a. The commissioner has completed a sanitary survey or a site visit within the last 12 months, and the transient noncommunity waterworks is free of sanitary defects and has a protected water source; and

b. The owner has a clean compliance history, defined as a record of no PMCL violations for microbiological contaminants, no monitoring violations under 12VAC5-590-370, and no coliform treatment technique trigger exceedances or treatment technique violations under 12VAC5-590-392, for a minimum of 12 months.

10. Seasonal waterworks monitoring.

a. All seasonal waterworks shall demonstrate completion of an approved start-up procedure that may include start-up sampling prior to serving water.

b. A seasonal waterworks shall monitor every month that it is in operation.

c. The commissioner may waive any seasonal waterworks from some or all of the requirements for seasonal waterworks if the entire distribution system remains pressurized during the entire period that the waterworks is not operating.

d. Failure to complete an approved start-up procedure prior to serving water is a treatment technique violation and requires the owner to provide public notification under Tier 2 conditions in 12VAC5-590-540.

e. Failure to submit certification of completion to the commissioner after the owner completes an approved start-up procedure is a reporting violation and requires the owner to provide public notification under Tier 3 conditions in 12VAC5-590-540.

11. Additional routine monitoring in the month following a total coliform-positive sample.

a. Owners collecting samples on a quarterly frequency shall collect at least three additional routine samples during the month following one or more total coliform-positive samples, with or without a Level 1 treatment trigger. The owner shall use the results of additional routine samples in coliform treatment technique trigger calculations under 12VAC5-590-392 B.

b. The requirements specified in subdivision A 11 a of this section may be waived by the commissioner if:

(1) The commissioner conducts a site visit before the end of the next month in which the waterworks provides water and has determined whether additional monitoring or corrective action is needed;

(2) The commissioner has determined why the sample was total coliform positive and has established that the owner corrected the problem or will correct the problem before the end of the next month in which the waterworks serves water. In this case, the decision and the rationale for the decision shall be documented and approved in writing by the commissioner. The commissioner shall make this document available to EPA and the public. The documentation shall describe the specific cause of the total coliform-positive sample and what action the owner has taken or will take to correct this problem; or

(3) The commissioner determines that the owner has corrected the contamination problem before collecting the set of repeat samples required in 12VAC5-590-380 D 3, and all repeat samples are total coliform negative. The commissioner may waive the requirement for additional routine monitoring the next month.

c. The requirements specified in subdivision A 11 a of this section may not be waived by the commissioner solely on the grounds that all repeat samples are total coliform negative.

12. Failure to collect every required routine or additional routine sample in a compliance period is a monitoring violation and requires the owner to provide public notification under Tier 3 conditions in 12VAC5-590-540.

13. Failure to submit monitoring results after the owner properly conducts monitoring is a reporting violation and requires the owner to provide public notification under Tier 3 conditions in 12VAC5-590-540.

B. Chemical. The location of sampling points, the chemicals measured, the frequency, and the timing of sampling within each compliance period shall be established or approved by the commissioner at the time of issuance of a waterworks operation permit. The commissioner may increase required monitoring where necessary to detect variations within the waterworks. Analysis of field composite samples shall not be allowed. Samples for contaminants that may exhibit seasonal variations shall be collected during the period of the year when contamination is most likely to occur. Failure to comply with the sampling schedules in this section shall require public notification pursuant to 12VAC5-590-540.

Any other dates contained in this chapter notwithstanding, all waterworks shall comply with all applicable PMCLs listed in Tables 2.2 and 2.3.

Design criteria for new or modified waterworks or owners developing new sources of supply are found in 12VAC5-590-820, 12VAC5-590-830 and 12VAC5-590-840.

1. Inorganic chemical. Community and nontransient noncommunity waterworks owners shall conduct monitoring to determine compliance with the MCLs in Table 2.2 in accordance with this section. All other noncommunity waterworks owners shall conduct monitoring to determine compliance with the nitrate and nitrite PMCLs in Table 2.2 (as appropriate) in accordance with this section. Monitoring shall be conducted as follows:

a. The owner of any groundwater source waterworks with 150 or more service connections shall take a minimum of one sample at each entry point to the distribution system which is representative of each source, after treatment, unless a change in condition makes another sampling point more representative of each source or treatment plant (hereafter called a sampling point) starting in the compliance period beginning January 1, 1993. The owner of any groundwater source waterworks with fewer than 150 service connections shall take a minimum of one sample at each sampling point for asbestos, barium, cadmium, chromium, fluoride, mercury, nitrate, nitrite, and selenium in the compliance period beginning January 1, 1993, for antimony, beryllium, cyanide (as free cyanide), nickel, and thallium in the compliance period beginning January 1, 1996, and for arsenic (for community and nontransient noncommunity waterworks) in compliance with subdivision B 1 d (6) (b) of this section.

b. The owner of any waterworks which uses a surface water source in whole or in part with 150 or more service connections shall take a minimum of one sample at each entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source, after treatment, unless a change in conditions makes another sampling point more representative of each source or treatment plant (hereafter called a sampling point) beginning January 1, 1993. The owner of any waterworks which use a surface water source in whole or in part with fewer than 150 service connections shall take a minimum of one sample at each sampling point for asbestos, barium, cadmium, chromium, fluoride, mercury, nitrate, nitrite, and selenium beginning January 1, 1993, for antimony, beryllium, cyanide (as free cyanide), nickel, and thallium beginning January 1, 1996, and for arsenic (for community and nontransient noncommunity waterworks) in compliance with subdivision B 1 d (6) (a) of this section.

c. If a waterworks draws water from more than one source and the sources are combined before distribution, the owner shall sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

d. The frequency of monitoring for asbestos shall be in accordance with subdivision B 1 d (1) of this section; the frequency of monitoring for barium, cadmium, chromium, fluoride, mercury, and selenium shall be in accordance with subdivision B 1 d (2) of this section; the frequency of monitoring for antimony, beryllium, cyanide (as free cyanide), nickel, and thallium shall be in accordance with subdivision B 1 d (3) of this section; the frequency of monitoring for nitrate shall be in accordance with subdivision B 1 d (4) of this section; the frequency of monitoring for nitrite shall be in accordance with subdivision B 1 d (5) of this section; and the frequency of monitoring for arsenic shall be in accordance with subdivision B 1 d (6) of this section.

(1) The frequency of monitoring conducted to determine compliance with the PMCL for asbestos specified in Table 2.2 shall be conducted as follows:

(a) The owner of each community and nontransient noncommunity waterworks is required to monitor for asbestos during the first three-year compliance period of each nine-year compliance cycle beginning in the compliance period starting January 1, 1993.

(b) If the owner believes the waterworks is not vulnerable to either asbestos contamination in its source water or due to corrosion of asbestos-cement pipe, or both, the owner may apply to the commissioner for a waiver of the monitoring requirement in subdivision B 1 d (1) (a) of this section. If the commissioner grants the waiver, the owner is not required to monitor.

(c) The commissioner may grant a waiver based on a consideration of the following factors:

(i) Potential asbestos contamination of the water source; and

(ii) The use of asbestos-cement pipe for finished water distribution and the corrosive nature of the water.

(d) A waiver remains in effect until the completion of the three-year compliance period. The owner of a waterworks not receiving a waiver shall monitor in accordance with the provisions of subdivision B 1 d (1) (a) of this section.

(e) The owner of a waterworks vulnerable to asbestos contamination due solely to corrosion of asbestos-cement pipe shall take one sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.

(f) The owner of a waterworks vulnerable to asbestos contamination due solely to source water shall monitor sampling points in accordance with subdivision B 1 of this section.

(g) The owner of a waterworks vulnerable to asbestos contamination due both to its source water supply and corrosion of asbestos-cement pipe shall take one sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.

(h) The owner of a waterworks which exceeds the PMCL as determined in 12VAC5-590-410 B 1 shall monitor quarterly beginning in the next quarter after the exceedance occurred.

(i) The commissioner may decrease the quarterly monitoring requirement to the frequency specified in subdivision B 1 d (1) (a) of this section provided the commissioner has determined that the waterworks is reliably and consistently below the PMCL. In no case can the commissioner make this determination unless the owner of a groundwater source waterworks takes a minimum of two quarterly samples or the owner of a waterworks which uses a surface water source in whole or in part takes a minimum of four quarterly samples.

(j) If monitoring data collected after January 1, 1990, are generally consistent with the requirements of subdivision B 1 d (1) of this section, then the commissioner may allow an owner to use that data to satisfy the monitoring requirement for the initial compliance period beginning January 1, 1993.

(2) The frequency of monitoring conducted to determine compliance with the MCLs in Table 2.2 for barium, cadmium, chromium, fluoride, mercury, and selenium shall be as follows:

(a) The owner of a groundwater source waterworks shall take one sample at each sampling point during each compliance period beginning in the compliance period starting January 1, 1993.

(b) The owner of a waterworks which uses a surface water source in whole or in part shall take one sample annually at each sampling point beginning January 1, 1993.

(c) An owner may apply to the commissioner for a waiver from the monitoring frequencies specified in subdivision B 1 d (2) (a) or (b) of this section.

(d) A condition of the waiver shall require that the owner shall take a minimum of one sample while the waiver is effective. The term during which the waiver is effective shall not exceed one compliance cycle (i.e., nine years).

(e) The commissioner may grant a waiver provided the owner of a waterworks that uses a surface water source in whole or in part has monitored annually for at least three years and groundwater waterworks have conducted a minimum of three rounds of monitoring. (At least one sample shall have been taken since January 1, 1990.) The owner of any waterworks which uses a surface water source in whole or in part or a groundwater source waterworks shall demonstrate that all previous analytical results were less than the PMCL. Waterworks that use a new water source are not eligible for a waiver until three rounds of monitoring from the new source have been completed.

(f) In determining the appropriate reduced monitoring frequency, the commissioner shall consider:

(i) Reported concentrations from all previous monitoring;

(ii) The degree of variation in reported concentrations; and

(iii) Other factors that may affect contaminant concentrations such as changes in groundwater pumping rates, changes in the waterworks configuration, changes in the waterworks operating procedures, or changes in stream flows or characteristics.

(g) A decision by the commissioner to grant a waiver shall be made in writing and shall set forth the basis for the determination. The request for a waiver may be initiated by the commissioner or upon an application by the owner. The owner shall specify the basis for the request. The commissioner shall review and, where appropriate, revise the determination of the appropriate monitoring frequency when the owner submits new monitoring data or when other data relevant to the waterworks appropriate monitoring frequency become available.

(h) Owners of waterworks that exceed the PMCLs as calculated in 12VAC5-590-410 shall monitor quarterly beginning in the next quarter after the exceedance occurred.

(i) The commissioner may decrease the quarterly monitoring requirement to the frequencies specified in subdivision B 1 d (2) (a), (b) or (c) of this section provided a determination has been made that the waterworks is reliably and consistently below the PMCL. In no case can the commissioner make this determination unless the owner of a groundwater source waterworks takes a minimum of two quarterly samples or the owner of a waterworks which uses a surface water source in whole or in part takes a minimum of four quarterly samples.

(3) The frequency of monitoring conducted to determine compliance with the PMCLs in Table 2.2 for antimony, beryllium, cyanide (as free cyanide), nickel, and thallium shall be as follows:

(a) The owner of a groundwater source waterworks with 150 or more service connections shall take one sample at each sampling point during each compliance period beginning in the compliance period starting January 1, 1993. The owner of a groundwater source waterworks with fewer than 150 service connections shall take one sample at each sampling point during each compliance

period beginning in the compliance period starting January 1, 1996.

(b) The owner of a waterworks that uses a surface water source in whole or in part with 150 or more service connections shall take one sample annually at each sampling point beginning January 1, 1993. The owner of a waterworks that uses a surface water source in whole or in part with fewer than 150 service connections shall take one sample annually at each sampling point beginning January 1, 1996.

(c) An owner may apply to the commissioner for a waiver from the monitoring frequencies specified in subdivision B 1 d (3) (a) or (b) of this section.

(d) A condition of the waiver shall require that the owner take a minimum of one sample while the waiver is effective. The term during which the waiver is effective shall not exceed one compliance cycle (i.e., nine years).

(e) The commissioner may grant a waiver provided the owner of a waterworks that uses a surface water source in whole or in part has monitored annually for at least three years and groundwater waterworks have conducted a minimum of three rounds of monitoring. (At least one sample shall have been taken since January 1, 1990.) The owner of any waterworks which uses a surface water source in whole or in part or a groundwater source waterworks shall demonstrate that all previous analytical results were less than the PMCL. Waterworks that use a new water source are not eligible for a waiver until three rounds of monitoring from the new source have been completed.

(f) In determining the appropriate reduced monitoring frequency, the commissioner shall consider:

(i) Reported concentrations from all previous monitoring;

(ii) The degree of variation in reported concentrations; and

(iii) Other factors which may affect contaminant concentrations such as changes in groundwater pumping rates, changes in the waterworks configuration, changes in the waterworks operating procedures, or changes in stream flows or characteristics.

(g) A decision by the commissioner to grant a waiver shall be made in writing and shall set forth the basis for the determination. The request for a waiver may be initiated by the commissioner or upon an application by the owner. The owner shall specify the basis for the request. The commissioner shall review and, where appropriate, revise the determination of the appropriate monitoring frequency when the owner submits new monitoring data or when other data relevant to the waterworks appropriate monitoring frequency become available.

(h) Owners of waterworks that exceed the PMCLs as calculated in 12VAC5-590-410 shall monitor quarterly beginning in the next quarter after the exceedance occurred.

(i) The commissioner may decrease the quarterly monitoring requirement to the frequencies specified in subdivision B 1 d (3) (a), (b) or (c) of this section provided a determination has been made that the waterworks is reliably and consistently below the PMCL. In no case shall the commissioner make this determination unless the owner of a groundwater source waterworks takes a minimum of two quarterly samples or the owner of a waterworks which uses a surface water source in whole or in part takes a minimum of four quarterly samples.

(4) All community, nontransient noncommunity and noncommunity waterworks owners shall monitor to determine compliance with the PMCL for nitrate in Table 2.2.

(a) Owners of community and nontransient noncommunity waterworks that use a groundwater source shall monitor annually beginning January 1, 1993.

(b) Owners of community and nontransient noncommunity waterworks that use a surface water source in whole or in part shall monitor quarterly beginning January 1, 1993.

(c) For owners of community and nontransient noncommunity waterworks that use groundwater, the repeat monitoring frequency shall be quarterly for at least one year following any one sample in which the concentration is greater than 50% of the PMCL. The commissioner may allow the owner of a waterworks, that uses groundwater, to reduce the sampling frequency to annually after four consecutive quarterly samples are reliably and consistently less than the PMCL.

(d) For community and nontransient noncommunity waterworks, the commissioner may allow the owner of a waterworks that uses a surface water source in whole or in part, to reduce the sampling frequency to annually if all analytical results from four consecutive quarters are less than 50% of the PMCL. Such waterworks shall return to quarterly monitoring if any one sample is greater than or equal to 50% of the PMCL.

(e) The owners of all other noncommunity waterworks shall monitor annually beginning January 1, 1993.

(f) After the initial round of quarterly sampling is completed, the owner of each community and nontransient noncommunity waterworks that is monitoring annually shall take subsequent samples during the quarter(s) which previously resulted in the highest analytical result.

(5) All owners shall monitor to determine compliance with the PMCL for nitrite in Table 2.2.

(a) All owners shall take one sample at each sampling point in the compliance period beginning January 1, 1993.

(b) After the initial sample, the owner of any waterworks where an analytical result for nitrite is less than 50% of the PMCL shall monitor at the frequency specified by the commissioner.

(c) The repeat monitoring frequency for any owner shall be quarterly for at least one year following any one sample in which the concentration is greater than 50% of the PMCL. The commissioner may allow an owner to reduce the sampling frequency to annually after determining the analysis results are reliably and consistently less than the PMCL.

(d) Owners of waterworks which are monitoring annually shall take each subsequent sample during the quarter(s) which previously resulted in the highest analytical result.

(6) The frequency of monitoring conducted to determine compliance with the PMCLs in Table 2.2 for arsenic shall be as follows:

(a) The owner of each community and nontransient noncommunity waterworks that uses a surface water source in whole or in part shall take one sample annually at each sampling point beginning January 23, 2006.

(b) The owner of each community and nontransient noncommunity groundwater source waterworks shall take one sample at each entry point during each compliance period starting January 23, 2006.

(c) Owners of waterworks that exceed the PMCL, as calculated in 12VAC5-590-410, shall monitor quarterly beginning in the next quarter after the exceedance has occurred.

(d) The commissioner may decrease the quarterly monitoring requirement to the frequencies specified in subdivision B 1 d (6) (a) or (b) of this section provided a determination has been made that the waterworks is reliably and consistently below the PMCL. In no case can the commissioner make this determination unless the owner of a groundwater source waterworks takes a minimum of two quarterly samples or the owner of a waterworks that uses a surface water source in whole or in part takes a minimum of four quarterly samples.

(e) No waivers shall be granted by the commissioner for arsenic.

2. Organic chemicals. Owners of all community and nontransient noncommunity waterworks shall sample for organic chemicals in accordance with their water source. Where two or more sources are combined before distribution, the owner shall sample at the entry point for the combined sources during periods of normal operating conditions.

a. Owners of waterworks that use groundwater shall take a minimum of one sample at each entry point to the distribution system which is representative of each source, after treatment (hereafter called a sampling point).

b. Owners of waterworks that use a surface water source in whole or in part 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).

c. The owner of each community and nontransient noncommunity waterworks shall take four consecutive quarterly samples for each contaminant listed in Table 2.3-VOC 2 through 21 and SOC during each compliance period, beginning in the compliance period starting January 1, 1993.

d. Reduced monitoring.

(1) VOC.

(a) If the initial monitoring for contaminants listed in Table 2.3-VOC 1 through 8 and the monitoring for the contaminants listed in Table 2.3-VOC 9 through 21 as allowed in subdivision B 2 d (1) (c) of this section has been completed by December 31, 1992, and the waterworks did not detect any contaminant listed in Table 2.3-VOC 1 through 21, then the owner of each groundwater waterworks and waterworks that use a surface water source in whole or in part shall take one sample annually beginning January 1, 1993.

(b) After a minimum of three years of annual sampling, the commissioner may allow the owner of a groundwater waterworks with no previous detection of any contaminant listed in Table 2.3-VOC 2 through 21 to take one sample during each compliance period.

(c) The commissioner may allow the use of monitoring data collected after January 1, 1988, for purposes of initial monitoring compliance. If the data are generally consistent with the other requirements in this section, the commissioner may use these data (i.e., a single sample rather than four quarterly samples) to satisfy the initial monitoring requirement of subdivision B 2 c of this section. Owners of waterworks that use grandfathered samples and did not detect any contaminants listed in Table 2.3-VOC, 2 through 21, shall begin monitoring annually in accordance with subdivision B 2 d (1) (a) of this section beginning January 1, 1993.

(2) SOC.

(a) Owners of waterworks serving more than 3,300 persons that do not detect a contaminant listed in Table 2.3-SOC 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.

(b) Owners of waterworks serving less than or equal to 3,300 persons that do not detect a contaminant listed in

Table 2.3-SOC in the initial compliance period may reduce the sampling frequency to a minimum of one sample during each repeat compliance period.

e. Waiver application.

(1) For VOCs. The owner of any community and nontransient noncommunity groundwater waterworks which does not detect a contaminant listed in Table 2.3-VOC may apply to the commissioner for a waiver from the requirements of subdivisions B 2 d (1) (a) and (b) of this section after completing the initial monitoring. A waiver shall be effective for no more than six years (two compliance periods). The commissioner may also issue waivers to small systems for the initial round of monitoring for 1,2,4-trichlorobenzene.

(2) For SOCs. The owner of any community and nontransient noncommunity waterworks may apply to the commissioner for a waiver from the requirement of subdivisions B 2 c and d (2) of this section. The owner shall reapply for a waiver for each compliance period.

f. The commissioner may grant a waiver after evaluating the following factors: Knowledge of previous use (including transport, storage, or disposal) of the contaminant within the watershed or zone of influence of the source. If a determination by the commissioner reveals no previous use of the contaminant within the watershed or zone of influence, a waiver may be granted. If previous use of the contaminant is unknown or it has been used previously, then the following factors shall be used to determine whether a waiver is granted.

(1) Previous analytical results.

(2) The proximity of the waterworks to a potential point or nonpoint source of contamination. Point sources include spills and leaks of chemicals at or near a waterworks or at manufacturing, distribution, or storage facilities, or from hazardous and municipal waste landfills and other waste handling or treatment facilities. Nonpoint sources for SOCs include the use of pesticides to control insect and weed pests on agricultural areas, forest lands, home and gardens, and other land application uses.

(3) The environmental persistence and transport of the contaminants listed in Table 2.3 VOC and SOC.

(4) How well the water source is protected against contamination, such as whether it is a waterworks that uses a surface water source in whole or in part or whether it is a groundwater source waterworks. Groundwater source waterworks shall consider factors such as depth of the well, the type of soil, wellhead protection, and well structure integrity. Owners of waterworks that use surface water in whole or in part shall consider watershed protection.

(5) Special factors.

(a) For VOCs. The number of persons served by the waterworks and the proximity of a smaller waterworks to a larger waterworks.

(b) For SOCs. Elevated nitrate levels at the waterworks supply source.

(c) For SOCs. Use of PCBs in equipment used in the production, storage, or distribution of water (i.e., PCBs used in pumps, transformers, etc.).

g. Condition for waivers.

(1) As a condition of the VOC waiver the owner of a groundwater waterworks shall take one sample at each sampling point during the time the waiver is effective (i.e., one sample during two compliance periods or six years) and update its vulnerability assessment considering the factors listed in subdivision B 2 f of this section. Based on this vulnerability assessment the commissioner shall reconfirm that the waterworks is nonvulnerable. If the commissioner does not make this reconfirmation within three years of the initial determination, then the waiver is invalidated and the owner is required to sample annually as specified in subdivision B 2 d (1) (a) of this section.

(2) The owner of any community and nontransient noncommunity waterworks that use surface water in whole or in part which does not detect a contaminant listed in Table 2.3-VOC may apply to the commissioner for a waiver from the requirements of subdivision B 2 d (1) (a) of this section after completing the initial monitoring. Waterworks meeting these criteria shall be determined by the commissioner to be nonvulnerable based on a vulnerability assessment during each compliance period. Each owner receiving a waiver shall sample at the frequency specified by the commissioner (if any).

(3) There are no conditions to SOC waivers.

h. If a contaminant listed in Table 2.3-VOC 2 through 21 or SOC 1 through 33 is detected then (NOTE: Detection occurs when a contaminant level exceeds the current detection limit as defined by EPA.):

(1) Each owner shall monitor quarterly at each sampling point which resulted in a detection.

(2) The commissioner may decrease the quarterly monitoring requirement specified in subdivision B 2 h (1) of this section provided it has determined that the waterworks is reliably and consistently below the PMCL. In no case shall the commissioner make this determination unless the owner of a groundwater waterworks takes a minimum of two quarterly samples and the owner of a waterworks that use surface water in whole or in part takes a minimum of four quarterly samples.

(3) If the commissioner determines that the waterworks is reliably and consistently below the PMCL, the commissioner may allow the waterworks to monitor annually. Owners of waterworks that monitor annually shall monitor during the quarter(s) that previously yielded the highest analytical result.

(4) Owners of waterworks that have three consecutive annual samples with no detection of a contaminant may apply to the commissioner for a waiver for VOC as specified in subdivision B 2 e (1) or to SOC as specified in subdivision B 2 e (2) of this section.

(5) Subsequent monitoring due to contaminant detection.

(a) Owners of groundwater waterworks 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 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 commissioner may reduce the quarterly monitoring frequency of vinyl chloride monitoring to one sample during each compliance period. Owners of waterworks that use surface water in whole or in part are required to monitor for vinyl chloride as specified by the commissioner.

(b) If monitoring results in detection of one or more of certain related contaminants (heptachlor and heptachlor epoxide), then subsequent monitoring shall analyze for all related contaminants.

i. Owners of waterworks that violate the requirements of Table 2.3 for VOCs or SOCs, as determined by 12VAC5-590-410 C, shall monitor quarterly. After a minimum of four consecutive quarterly samples that show the waterworks is in compliance as specified in 12VAC5-590-410 C and the commissioner determines that the waterworks is reliably and consistently below the PMCL, the owner may monitor at the frequency and time specified in subdivision B 2 h (3) of this section.

3. Disinfectant residuals, disinfection byproducts and disinfection byproduct precursors.

a. Unless otherwise noted, owners of all waterworks that use a chemical disinfectant shall comply with the requirements of this section as follows:

(1) Owners of community or nontransient noncommunity waterworks that use surface water or groundwater under the direct influence of surface water and serving 10,000 or more persons shall comply with this section beginning January 1, 2002.

(2) Owners of community or nontransient noncommunity waterworks that use surface water or groundwater under the direct influence of surface water serving fewer than 10,000 persons and waterworks using only groundwater not under the direct influence of surface water shall comply with this section beginning January 1, 2004.

(3) Owners of transient noncommunity waterworks that use surface water or groundwater under the direct influence of surface water and serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant shall comply with any requirements for chlorine dioxide in this section beginning January 1, 2002.

(4) Owners of transient noncommunity waterworks that use surface water or groundwater under the direct influence of surface water serving fewer than 10,000 persons and using chlorine dioxide as a disinfectant or oxidant and waterworks using only groundwater not under the direct influence of surface water and using chlorine dioxide as a disinfectant or oxidant shall comply with any requirements for chlorine dioxide in this section beginning January 1, 2004.

b. Owners shall take all samples during normal operating conditions.

(1) Analysis under this section for disinfection byproducts (TTHM, HAA5, chlorite and bromate) shall be conducted by a laboratory that has received certification by EPA or the state except as noted in subdivision B 3 b (2) of this section.

(2) Measurement under this section of daily chlorite samples at the entry point to the distribution system, disinfection residuals (free chlorine, combined chlorine, total chlorine and chlorine dioxide), alkalinity, bromide, TOC, SUVA (DOC and UV_{254}), pH and magnesium shall be made by a party approved by the commissioner.

(3) DPD colorimetric test kits may be used to measure residual disinfectant concentrations for chlorine, chloramines and chlorine dioxide.

c. Failure to monitor in accordance with the monitoring plan required under subdivision B 3 j of this section is a monitoring violation. Failure to monitor shall be treated as a violation for the entire period covered by the annual average where compliance is based on a running annual average of monthly or quarterly samples or averages and the owner's failure to monitor makes it impossible to determine compliance with PMCLs or MRDLs.

d. Owners may use only data collected under the provisions of this section or the US EPA Information Collection Rule, 40 CFR Part 141 Subpart M, Information Collection Requirements (ICR) for Public Water Systems, to qualify for reduced monitoring.

e. TTHM/HAA5 monitoring. Owners of community or nontransient noncommunity waterworks shall monitor TTHM and HAA5 at the frequency indicated below, unless otherwise indicated:

(1) Running annual average monitoring requirements.

(a) Routine monitoring requirements:

(i) Owners of waterworks using surface water or groundwater under the direct influence of surface water and serving at least 10,000 persons shall collect four water samples per quarter per treatment plant. At least 25% of all samples collected each quarter shall be at locations representing maximum residence time in the distribution system. The remaining samples shall be taken at locations representative of at least average residence time in the distribution system and representative of the entire distribution system. When setting the sample locations the waterworks shall take into account number of persons served, different sources of water, and different treatment methods.

(ii) Owners of waterworks using surface water or groundwater under the direct influence of surface water and serving from 500 to 9,999 persons shall collect one sample per quarter per treatment plant. The sample location shall represent maximum residence time in the distribution system.

(iii) Owners of waterworks using surface water or groundwater under the direct influence of surface water and serving fewer than 500 persons shall collect one sample per year per treatment plant during the month of warmest water temperature. The sample location shall represent maximum residence time in the distribution system. If the sample (or average of annual samples, if more than one sample is taken) exceeds PMCL in Table 2.13, the owner shall increase monitoring to one sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until waterworks meets reduced monitoring criteria.

(iv) Owners of waterworks using only groundwater not under direct influence of surface water using chemical disinfectant and serving at least 10,000 persons shall collect one sample per quarter per treatment plant. The sample location shall represent maximum residence time in the distribution system.

(v) Owners of waterworks using only groundwater not under direct influence of surface water using chemical disinfectant and serving fewer than 10,000 persons shall collect one sample per year per treatment plant during the month of warmest water temperature. The sample location shall represent maximum residence time in the distribution system. If the sample (or average of annual samples, if more than one sample is taken) exceeds PMCL in Table 2.13, the owner shall increase monitoring to one sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until the waterworks meets the criteria for reduced monitoring found in subdivision B 3 e (1) (d) of this section.

(vi) If an owner elects to sample more frequently than the minimum required, at least 25% of all samples collected each quarter (including those taken in excess of the required frequency) shall be taken at locations that represent the maximum residence time of the water in the distribution system. The remaining samples shall be taken at locations representative of at least average residence time in the distribution system.

(vii) With prior approval of the commissioner, owners of waterworks that utilize multiple wells from a common aquifer may consider these multiple sources as one treatment plant for determining the minimum number of samples to be collected for TTHM and HAA5 analysis.

(b) After one year of routine monitoring an owner may reduce monitoring, except as otherwise provided, as follows:

(i) Owners of waterworks using surface water or groundwater under the direct influence of surface water and serving at least 10,000 persons that has a source water annual average TOC level, before any treatment, of equal to or less than 4.0 mg/L and a TTHM annual average equal to or less than 0.040 mg/L and HAA5 annual average equal to or less than 0.030 mg/L may reduce its monitoring to one sample per treatment plant per quarter at a distribution system location reflecting maximum residence time.

(ii) Owners of waterworks using surface water or groundwater under the direct influence of surface water serving from 500 to 9,999 persons that has a source water annual average TOC level, before any treatment, equal to or less than 4.0 mg/L and a TTHM annual average equal to or less than 0.040 mg/L and HAA5 annual average equal to or less than 0.030 mg/L may reduce its monitoring to one sample per treatment plant per year at a distribution system location reflecting maximum residence time during the month of warmest water temperature.

(iii) Owners of waterworks using only groundwater not under the direct influence of surface water, using chemical disinfectant and serving at least 10,000 persons that has a TTHM annual average of equal to or less than 0.040 mg/L and HAA5 annual average of equal to or less than 0.030 mg/L may reduce its monitoring to one sample per treatment plant per year at a distribution system location reflecting maximum residence time during the month of warmest water temperature.

(iv) Owners of waterworks using only groundwater not under the direct influence of surface water, using chemical disinfectant and serving fewer than 10,000 persons that has a TTHM annual average equal to or less than 0.040 mg/L and HAA5 annual average equal to or less than 0.030 mg/L for two consecutive years or TTHM annual average equal to or less than 0.020 mg/L and HAA5 annual average of equal to or less than 0.015 mg/L for one year may reduce its monitoring to one sample per treatment plant per three-year monitoring

cycle at a distribution system location reflecting maximum residence time during the month of warmest water temperature, with the three-year cycle beginning on January 1 following the quarter in which the system qualifies for reduced monitoring.

(v) Owners of waterworks using surface water or groundwater under the direct influence of surface water serving fewer than 500 persons may not reduce its monitoring to less than one sample per treatment plant per year.

(vi) In order to qualify for reduced monitoring for TTHM and HAA5 under subdivision B 3 e (1) (b) (i) through (iv) of this section, owners of waterworks using surface water or groundwater under the direct influence of surface water not monitoring under the provisions of subdivision B 3 (i) shall take monthly TOC samples every 30 days at a location prior to any treatment, beginning April 1, 2008. In addition to meeting other criteria for reduced monitoring in subdivision B 3 e (1) (b) (i) through (iv) of this section, the source water TOC running annual average shall be less than or equal to 4.0 mg/L (based on the most recent four quarters of monitoring) on a continuing basis at each treatment plant to reduce or remain on reduced monitoring for TTHM and HAA5. Once qualified for reduced monitoring for TTHM and HAA5 under subdivision B 3 e (1) (b) (i) through (iv) of this section, a system may reduce source water TOC monitoring to quarterly TOC samples taken every 90 days at a location prior to any treatment.

(c) Owners of waterworks on a reduced monitoring schedule may remain on that reduced schedule as long as the average of all samples taken in the year (for waterworks that must monitor quarterly) or the result of the sample (for waterworks that must monitor no more frequently than annually) is no more than 0.060 mg/L and 0.045 mg/L for TTHMs and HAA5, respectively. Owners of waterworks that do not meet these levels shall resume monitoring at the frequency identified in subdivision B 3 e (1) (a) of this section in the quarter immediately following the monitoring period in which the waterworks exceeds 0.060 mg/L or 0.045 mg/L for TTHMs and HAA5, respectively. For waterworks using only groundwater not under the direct influence of surface water and serving fewer than 10,000 persons, if either the TTHMs annual average is greater than 0.080 mg/L or the HAA5 annual average is greater than 0.060 mg/L, the owner shall go to increased monitoring identified in subdivision B 3 e (1) (a) of this section in the quarter immediately following the monitoring period in which the waterworks exceeds 0.080 mg/L or 0.060 mg/L for TTHM or HAA5 respectively.

(d) Owners of waterworks on increased monitoring may return to routine monitoring if, after at least one year of monitoring, their TTHM annual average is equal to or less than 0.060 mg/L and their HAA5 annual average is equal to or less than 0.045 mg/L.

(e) The commissioner may return a waterworks to routine monitoring at the commissioner's discretion.

(2) Initial distribution system evaluations (IDSE).

(a) This subdivision establishes monitoring and other requirements for identifying locational running annual average (LRAA) compliance monitoring locations for determining compliance with maximum contaminant levels for total trihalomethanes (TTHM) and haloacetic acids (five) (HAA5). Owners shall use an IDSE to determine locations with representative high TTHM and HAA5 concentrations throughout the distribution system. IDSEs are used in conjunction with, but separate from running annual average compliance monitoring locations, subdivision B 3 e (1) (a) of this section, to identify and select locational running annual average compliance monitoring locations, subdivision B 3 e (3) of this section.

(b) This subdivision applies to the following waterworks:

(i) Community waterworks that use 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,

(ii) Nontransient noncommunity waterworks that serve at least 10,000 people and use 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) Owners shall comply with the following schedule:

Waterworks Population	Owners shall submit a standard monitoring plan or system specific study plan[1] or 40/30 certification[2] to the commissioner by or receive very small system waiver from the commissioner.	Owners shall complete standard monitoring or system specific study by	Owners shall submit IDSE report to the commissioner by[3]
Waterworks that are not part of a combined distribution system and waterworks that serve the largest population in the combined distribution system			
Equal to or greater than 100,000	October 1, 2006	September 30, 2008	January 1, 2009
50,000-99,999	April 1, 2007	March 31, 2009	July 1, 2009

10,000-49,999	October 1, 2007	September 30, 2009	January 1, 2010
Less than 10,000 (CWS Only)	April 1, 2008	March 31, 2010	July 1, 2010
Other waterworks that are part of a combined distribution system			
Wholesale waterworks or consecutive waterworks	-at the same time as the waterworks with the earliest compliance date in the combined distribution system	-at the same time as the waterworks with the earliest compliance date in the combined distribution system	-at the same time as the waterworks with the earliest compliance date in the combined distribution system

[1]If, within 12 months after the date identified in this column, the commissioner does not approve the plan or notify the owner that the review has been completed; the owner may consider the submitted plan as approved. The owner shall implement the plan and shall complete standard monitoring or a system specific study no later than the date identified in the third column.

[2]The owner shall submit the 40/30 certification under subdivision B 3 e (2) (d) (v) of this section by the date indicated.

[3]If, within three months after the date identified in this column (nine months after the date identified in this column if the owner is required to comply with the schedule for waterworks populations 10,000 to 49,999), the commissioner does not approve the IDSE report or notify the owner that the review has not been completed, the owner may consider the submitted report as approved and the owner shall implement the recommended monitoring in accordance with subdivision B 3 e (3) of this section as required.

For the purpose of this schedule, the commissioner has determined that the combined distribution system does not include consecutive waterworks that receive water from a wholesale waterworks only on an emergency basis or receive less than 10% of their total water consumption from a wholesale waterworks. The commissioner has also determined that the combined distribution system does not include wholesale waterworks that deliver water to a consecutive waterworks only on an emergency basis or delivers less than 10% of the total water used by a consecutive waterworks.

(d) Owners shall conduct standard monitoring that meets the requirements in subdivision B 3 e (2) (d) (iii) of this section, or a system specific study that meets the requirements in subdivision B 3 e (2) (d) (iv) of this section, or certify to the commissioner that the waterworks meets 40/30 certification criteria under subdivision B 3 e (2) (d) (v) of this section, or qualify for a very small system waiver under subdivision B 3 e (2) (d) (vi) of this section.

(i) Owners shall have taken the full complement of routine TTHM and HAA5 compliance samples required of a waterworks based on population and source water under subdivision B 3 e (1) of this section (or the owner shall have taken the full complement of reduced TTHM and HAA5 compliance samples required of an owner based population and source water under subdivision B 3 e (1) of this section if the waterworks meet reduced monitoring criteria under subdivision B 3 e (1)) of this section during the period specified in subdivision B 3 e (2) (d) (v) ((a)) of this section to meet the 40/30 certification criteria in subdivision B 3 e (2) (d) (v) of this section. Owners shall have taken TTHM and HAA5 samples under subdivision B 3 e (1) of this section to be eligible for the very small system waiver in subdivision B 3 e (2) (d) (vi) of this section.

(ii) If the owner has not taken the required samples, the owner shall conduct standard monitoring that meets the requirements in subdivision B 3 e (2) (d) (iii) of this section, or a system specific study that meets the requirements in subdivision B 3 e (2) (d) (iv) of this section.

(iii) Standard Monitoring.

((a)) The standard monitoring plan shall comply with the following paragraphs ((i)) through ((iv)). Owners shall prepare and submit the standard monitoring plan to the commissioner according to the schedule in subdivision B 3 e (2) (c) of this section.

((i)) The standard monitoring plan shall include a schematic of the waterworks distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating locations and dates of all projected standard monitoring, and all projected compliance monitoring in accordance with subdivision B 3 e (1) of this section.

((ii)) The standard monitoring plan shall include justification of standard monitoring location selection and a summary of data relied on to justify standard monitoring location selection.

((iii)) The standard monitoring plan shall specify the population served and waterworks type (surface water, groundwater under the direct influence of surface water or groundwater).

((iv)) Owners shall retain a complete copy of the submitted standard monitoring plan, including any modification required by the commissioner of the standard monitoring plan, for as long as the owner is required to retain the IDSE report under subdivision B 3 e (2) (d) (iii) ((c)) ((iv)) of this section.

((b)) Owners shall monitor as indicated in the following table. Owners shall collect dual sample sets at each monitoring location. One sample in the dual sample set shall be analyzed for TTHM. The other sample in the dual sample set shall be analyzed for HAA5. Owners shall conduct one monitoring period during the peak

historical month for TTHM levels or HAA5 levels or the month of warmest water temperature. Owners shall review available compliance, study, or operational data to determine the peak historical month for TTHM or HAA5 levels or warmest water temperature.

Source Water Type	Population Size Category	Monitoring Periods and Frequency of Sampling	Distribution System Monitoring Locations[1]				
			Total per monitoring period	Near Entry Points	Average Residence Time	High TTHM Locations	High HAA5 Locations
Surface water or ground-water under the direct influence of surface water.	Less than 500 consecutive waterworks	one (during peak historical month)[2]	2	1		1	
	Less than 500 nonconsecutive waterworks		2			1	1
	500-3,300 consecutive waterworks	four (every 90 days)	2	1		1	
	500-3,300 nonconsecutive waterworks		2			1	1
	3,301-9,999		4		1	2	1
	10,000-49,999	six (every 60 days)	8	1	2	3	2
	50,000-249,999		16	3	4	5	4
	250,000-999,999		24	4	6	8	6
	1,000,000-4,999,999		32	6	8	10	8
	Equal to or greater than 5,000,000		40	8	10	12	10
Ground-water	Less than 500 consecutive waterworks	one (during peak historical month)[2]	2	1		1	
	Less than 500 nonconsecutive waterworks		2			1	1
	500-9,999	four (every 90 days)	2			1	1
	10,000-99,999		6	1	1	2	2
	100,000-499,999		8	1	1	3	3
	Equal to or greater than 500,000		12	2	2	4	4

[1]A dual sample set (i.e., a TTHM and an HAA5 sample) shall be taken at each monitoring location during each monitoring period.

[2]The peak historical month is the month with the highest TTHM or HAA5 levels or the warmest water temperature.

((i)) Owners shall take samples at locations other than the existing monitoring locations used in subdivision B 3 e (1) of this section. Monitoring locations shall be distributed throughout the distribution system.

((ii)) If the number of entry points to the distribution system is fewer than the specified number of entry point monitoring locations, excess entry point samples shall be replaced equally at high TTHM and HAA5 locations. If there is an odd extra location number, the owner shall take a sample at a high TTHM location. If the number of entry points to the distribution system is more than the specified number of entry point monitoring locations, owners shall take samples at entry points to the distribution system having the highest annual water flows.

((iii)) The monitoring under subdivision B 3 e (2) (d) (iii) ((b)) of this section may not be reduced.

((c)) The IDSE report shall include the elements required in the following paragraphs. Owners shall submit the IDSE report to the commissioner according to the schedule in subdivision B 3 e (2) (c) of this section.

((i)) The IDSE report shall include all TTHM and HAA5 analytical results from compliance monitoring required under subdivision B 3 e (1) of this section and all standard monitoring conducted during the period of the IDSE as individual analytical results and LRAAs presented in a tabular or spreadsheet format acceptable to the commissioner. If changed from the standard monitoring plan submitted under subdivision B 3 e (2) (d) (iii) ((a)) of this section, the report shall also include a schematic of the distribution system, the population served, and system type (surface water, groundwater under the direct influence of surface water or groundwater).

((ii)) The IDSE report shall include an explanation of any deviations from the approved standard monitoring plan.

((iii)) Owners shall recommend and justify the compliance monitoring locations to be used in accordance with subdivision B 3 e (3) of this section and timing based on the protocol in subdivision B 3 e (2) (e) of this section.

((iv)) Owners shall retain a complete copy of the IDSE report submitted under this section for 10 years after the date the report was submitted to the commissioner. If the commissioner modifies the LRAA monitoring requirements recommended in the IDSE report or if the commissioner approves alternative monitoring locations, the owner shall keep a copy of the commissioner's notification on file for 10 years after the date of the commissioner's notification. The owner shall make the IDSE report and any commissioner's notification available for review by the commissioner or the public.

(iv) System Specific Studies.

((a)) The system specific study plan shall be based on either existing monitoring results as required under subdivision B 3 e (2) (d) (iv) ((a)) or modeling as required under subdivision B 3 e (2) (d) (iv) ((a)) of this section. Owners shall prepare and submit the waterworks specific study plan to the commissioner according to the schedule in subdivision B 3 e (2) (c) of this section.

((i)) Existing monitoring results. Owners may comply by submitting monitoring results collected before the waterworks is required to begin monitoring under subdivision B 3 e (2) (c) of this section. The monitoring results and analysis shall meet the criteria in subdivisions ((1)) and ((2)) as follows:

((1)) Minimum requirements.

((A)) TTHM and HAA5 results shall be based on samples collected and analyzed in accordance with 12VAC5-590-440. Samples shall be collected no earlier than five years prior to the study plan submission date.

((B)) The monitoring locations and frequency shall meet the conditions identified in the following table. Each location shall be sampled once during the peak historical month for TTHM levels or HAA5 levels or the month of warmest water temperature for every 12 months of data submitted for that location. Monitoring results shall include all compliance monitoring results in accordance with subdivision B 3 e (1) of this section plus additional monitoring results as necessary to meet minimum sample requirements.

System Type	Population Size Category	Number of Monitoring Locations	Number of Samples	
			TTHM	HAA5
Surface water or groundwater under the direct influence of surface water	Less than 500	3	3	3
	500-3,300	3	9	9
	3,301-9,999	6	36	36
	10,000-49,999	12	72	72
	50,000-249,999	24	144	144
	250,000-999,999	36	216	216
	1,000,000-4,999,999	48	288	288
	Equal to or greater than 5,000,000	60	360	360
Groundwater	Less than 500	3	3	3
	500-9,999	3	9	9

	10,000-99,999	12	48	48
	100,000-499,999	18	72	72
	Equal to or greater than 500,000	24	96	96

((2)) Reporting monitoring results. Owners shall report the following information:

((A)) Owners shall report previously collected monitoring results and certify that the reported monitoring results include all compliance and non-compliance results generated during the time period beginning with the first reported result and ending with the most recent results collected in accordance with subdivision B 3 e (1) of this section.

((B)) Owners shall certify that the samples were representative of the entire distribution system and that treatment, and distribution system have not changed significantly since the samples were collected.

((C)) The study monitoring plan shall include a schematic of the distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating the locations and dates of all completed or planned system specific study monitoring.

((D)) The system specific study plan shall specify the population served and system type (surface water, groundwater under the direct influence of surface water or groundwater).

((E)) Owners shall retain a complete copy of the system specific study plan submitted, including any modification requested by the commissioner of the system specific study plan, for as long as the owner is required to retain the IDSE report under subdivision B 3 e (2) (d) (iv) ((b)) ((vii)) of this section.

((F)) If previously collected data that fully meets the number of samples required under subdivision B 3 e (2) (d) (iv) ((a)) ((i)) ((1)) ((b)) of this section and the commissioner rejects some of the data, the owner shall either conduct additional monitoring to replace rejected data on a schedule the commissioner approves or conduct standard monitoring under subdivision B 3 e (2) (d) (iii) of this section.

((ii)) Modeling. Owners may comply through analysis of an extended period simulation hydraulic model. The extended period simulation hydraulic model and analysis shall meet the following criteria:

((1)) Minimum requirements.

((A)) The model shall simulate 24-hour variation in demand and show a consistently repeating 24-hour pattern of residence time.

((B)) The model shall represent the criteria listed in the following table:

75% of pipe volume;
50% of pipe length;
All pressure zones;
All 12-inch diameter and larger pipes;
All 8-inch and larger pipes that connect pressure zones, influence zones from different sources, storage facilities, major demand areas, pumps, and control valves, or are known or expected to be significant conveyors of water;
All 6-inch and larger pipes that connect remote areas of a distribution system to the main portion of the system;
All storage facilities with standard operations represented in the model; and
All active pump stations with controls represented in the model; and
All active control valves.

((C)) The model shall be calibrated, or have calibration plans, for the current configuration of the distribution system during the period of high TTHM formation potential. All storage facilities shall be evaluated as part of the calibration process. All required calibration shall be completed no later than 12 months after plan submission.

((2)) Reporting modeling. The system specific study plan shall include the following information:

((A)) Tabular or spreadsheet data demonstrating that the model meets requirements in subdivision B 3 e (2) (d) (iv) ((a)) ((ii)) ((1)) ((b)) of this section.

((B)) A description of all calibration activities undertaken, and if calibration is complete, a graph of predicted tank levels versus measured tank levels for the storage facility with the highest residence time in each pressure zone, and a time series graph of the residence time at the longest residence time storage facility in the distribution system showing the predictions for the entire simulation period (i.e., from time zero until the time it takes to for the model to reach a consistently repeating pattern of residence time).

((C)) Model output showing preliminary 24-hour average residence time predictions throughout the distribution system.

((D)) Timing and number of samples representative of the distribution system planned for at least one

monitoring period of TTHM and HAA5 dual sample monitoring at a number of locations no less than would be required for the system under standard monitoring in subdivision B 3 e (2) (d) (iii) of this section during the historical month of high TTHM. These samples shall be taken at locations other than existing compliance monitoring locations listed in subdivision B 3 e (1) of this section.

((E)) Description of how all requirements will be completed no later than 12 months after owner submits the system specific study plan.

((F)) Schematic of the distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating the locations and dates of all completed system specific study monitoring (if calibration is complete) and all compliance monitoring listed in subdivision B 3 e (1) of this section.

((G)) Population served and system type (surface water, groundwater under the direct influence of surface water or groundwater).

((H)) Owners shall retain a complete copy of the system specific study plan submitted, including any modification recommended by the commissioner to the waterworks specific study plan, for as long as the owner is required to retain the IDSE report under subdivision B 3 e (2) (d) (iv) ((b)) ((vii)) of this section.

((3)) If an owner submits a model that does not fully meet the requirements under paragraph (iv) ((a)) ((ii)) of this section, the owners shall correct the deficiencies and respond to commissioner's inquiries concerning the model. If the owner fails to correct deficiencies or respond to inquiries to the commissioner's satisfaction, the owner shall conduct standard monitoring under subdivision B 3 e (2) (d) (iii) of this section.

((b)) The IDSE report shall include the elements required in the following paragraphs. Owners shall submit the IDSE report according to the schedule in subdivision B 3 e (2) (c) of this section.

((i)) The IDSE report shall include all TTHM and HAA5 analytical results from compliance monitoring in subdivision B 3 e (1) of this section and all system specific study monitoring conducted during the period of the system specific study presented in a tabular or spreadsheet format acceptable to the commissioner. If changed from the system specific study plan submitted under subdivision B 3 e (2) (d) (iv) ((a)) of this section, the IDSE report shall also include a schematic of the distribution system, the population served; and system type (surface water, groundwater under the direct influence of surface water or groundwater).

((ii)) Owners of waterworks using the modeling provision under subdivision B 3 e (2) (d) (iv) ((a)) ((ii)) of this section shall include final information for the elements described in subdivision B 3 e (2) (d) (iv) ((a)) ((ii)) ((2)) of this section, and a 24-hour time series graph of residence time for each LRAA compliance monitoring location selected.

((iii)) The owner shall recommend and justify LRAA compliance monitoring locations and timing based on the protocol in subdivision B 3 e (2) (e) of this section.

((iv)) The IDSE report shall include an explanation of any deviations from the waterworks approved system specific study plan.

((v)) The IDSE report shall include the basis (analytical and modeling results) and justification the owner used to select the recommended LRAA monitoring locations.

((vi)) The owner may submit the IDSE report in lieu of the system specific study plan on the schedule identified in subdivision B 3 e (2) (c) of this section for submission of the system specific study plan if the owner believes the necessary information has been obtained by the time that the waterworks specific study plan is due. If the owner elects this approach, the IDSE report shall also include all information required under subdivision B 3 e (2) (d) (iv) ((a)) of this section.

((vii)) The owner shall retain a complete copy of the IDSE report submitted under this subdivision for 10 years after the date submitted. If the commissioner modifies the LRAA monitoring requirements that the owner recommended in the IDSE report or if the commissioner approves alternative monitoring locations, the owner shall keep a copy of the commissioner's notification on file for 10 years after the date of the commissioner's notification. The owner shall make the IDSE report and any notification from the commissioner available for review by the commissioner or the public.

(v) 40/30 certifications.

((a)) Eligibility. Waterworks are eligible for 40/30 certification if the waterworks had no TTHM or HAA5 monitoring violations under subdivision B 3 e (1) of this section and no individual sample exceeded 0.040 mg/L for TTHM or 0.030 mg/L for HAA5 during an eight consecutive calendar quarter period beginning no earlier than the date specified in the following table.

If the waterworks 40/30 Certification Is Due	Then the waterworks eligibility for 40/30 certification is based on eight consecutive calendar quarters of compliance monitoring under subdivision B 3 e (1) results beginning no earlier than[1]
October 1, 2006	January 2004
April 1, 2007	January 2004

October 1, 2007	January 2005
April 1, 2008	January 2005

[1]Unless the waterworks is on reduced monitoring under subdivision B 3 e (1) of this section and was not required to monitor during the specified period. If the owner did not monitor during the specified period, the owner shall base eligibility on compliance samples taken during the 12 months preceding the specified period.

((b)) Requirements for 40/30 certification:

((i)) Certify to the commissioner that every individual compliance sample taken under subdivision B 3 e (1) of this section during the periods specified in subdivision B 3 e (2) (d) (v) ((a)) of this section were less than or equal to 0.040 mg/L for TTHM and less than or equal to 0.030 mg/L for HAA5, and that the waterworks has not had any TTHM or HAA5 monitoring violations during the period specified in subdivision ((a)).

((ii)) The commissioner may require the owner to submit compliance monitoring results, distribution system schematics, and/or recommended LRAA compliance monitoring locations in addition to the certification. If an owner fails to submit the requested information, the commissioner may require standard monitoring under subdivision B 3 e (2) (d) (iii) of this section or a system specific study under subdivision B 3 e (2) (d) (iv) of this section.

((iii)) The commissioner may still require standard monitoring under subdivision B 3 e (2) (d) (iii) or a system specific study under subdivision B 3 e (2) (d) (iv) of this section even if the waterworks meet the criteria in subdivision B 3 e (2) (d) (v) ((a)) of this section.

((iv)) The owner shall retain a complete copy of the certification submitted under this subdivision for 10 years after the date that the owner submitted the certification. The owner shall make the certification, all data upon which the certification is based, and any notification from the commissioner available for review by the commissioner or the public.

(vi) Very small system waivers.

((a)) If the waterworks serves fewer than 500 people and has taken TTHM and HAA5 samples under subdivision B 3 e (1) of this section, the owner is not required to comply with this subdivision unless the commissioner notifies the owner to conduct standard monitoring under subdivision B 3 e (2) (d) (iii) or a system specific study under subdivision B 3 e (2) (d) (iv) of this section.

((b)) If the owner has not taken TTHM and HAA5 samples under subdivision B 3 e (1) of this section or if the commissioner notifies the owner to comply with this subdivision, the owner shall conduct standard monitoring under subdivision B 3 e (2) (d) (iii) of this section or a system specific study under subdivision B 3 e (2) (d) (iv) of this section.

(e) LRAA compliance monitoring location recommendations.

(i) The IDSE report shall include recommendations and justification for where and during what month(s) TTHM and HAA5 monitoring in accordance with subdivision B 3 e (3) of this section should be conducted. These recommendations shall be based on the criteria in the paragraphs in this section.

(ii) Owners shall select the number of monitoring locations specified in the following table. These recommended locations will be used as LRAA routine compliance monitoring locations, unless the commissioner requires different or additional locations. The locations should be distributed throughout the distribution system to the extent possible.

Source Water Type	Population Size Category	Monitoring Frequency[1]	Distribution System Monitoring Location			
			Total per monitoring period[2]	Highest TTHM Locations	Highest HAA5 Locations	Existing Compliance Locations in accordance with subdivision B 3 e (1)
Surface water or ground-water under the direct influence of surface water	Less than 500	per year	2	1	1	
	500-3,300	per quarter	2	1	1	
	3,301-9,999	per quarter	2	1	1	
	10,000-49,999	per quarter	4	2	1	1
	50,000-249,999	per quarter	8	3	3	2
	250,000-999,999	per quarter	12	5	4	3
	1,000,000-4,999,999	per quarter	16	6	6	4

	Equal to or greater than 5,000,000	per quarter	20	8	7	5
Ground-water	Less than 500	per year	2	1	1	
	500-9,999	per year	2	1	1	
	10,000-99,999	per quarter	4	2	1	1
	100,000-499,999	per quarter	6	3	2	1
	Equal to or greater than 500,000	per quarter	8	3	3	2

[1]All owners shall monitor during month of highest DBP concentrations.

[2]Owners of waterworks on quarterly monitoring (except for surface water source or GUDI source waterworks serving 500-3,300) shall take dual sample sets every 90 days at each monitoring location. Groundwater source waterworks serving 500-9,999 (on annual monitoring) shall take dual sample sets annually at each monitoring location. Waterworks serving fewer than 500 and surface water source or GUDI source waterworks serving 500-3,300 shall take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. Waterworks serving fewer than 500 shall sample annually and surface water source or GUDI source systems serving 500-3,300 shall sample every 90 days. Only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location (and month, if monitoring annually).

(iii) Owners shall recommend LRRA compliance monitoring locations based on standard monitoring results, system specific study results, and compliance monitoring results under subdivision B 3 e (1) of this section. Owners shall follow the protocol in subdivision B 3 e (2) (e) (iii) ((a)) through ((h)) of this section. If required to monitor at more than eight locations, the owner shall repeat the protocol as necessary. If a owner does not have existing compliance monitoring results under subdivision B 3 e (1) of this section or if the owner does not have enough existing compliance monitoring results under subdivision B 3 e (1) of this section, the owner shall repeat the protocol, skipping the provisions of subdivision B 3 e (2) (e) (iii) ((c)) and ((g)) of this section as necessary, until the owner has identified the required total number of monitoring locations.

((a)) Location with the highest TTHM LRAA not previously selected as a LRAA monitoring location.

((b)) Location with the highest HAA5 LRAA not previously selected as a LRAA monitoring location.

((c)) Existing average residence time compliance monitoring location under subdivision B 3 e (1) of this section (maximum residence time compliance monitoring location for ground water systems) with the highest HAA5 LRAA not previously selected as a LRAA monitoring location.

((d)) Location with the highest TTHM LRAA not previously selected as a LRAA monitoring location.

((e)) Location with the highest TTHM LRAA not previously selected as a LRAA monitoring location.

((f)) Location with the highest HAA5 LRAA not previously selected as a LRAA monitoring location.

((g)) Existing average residence time compliance monitoring location under subdivision B 3 e (1) of this section (maximum residence time compliance monitoring location for ground water systems) with the highest TTHM LRAA not previously selected as a LRAA monitoring location.

((h)) Location with the highest HAA5 LRAA not previously selected as a LRAA monitoring location.

(iv) An owner may recommend locations other than those specified in subdivision B 3 e (2) (e) (iii) of this section if the owner includes a rationale for selecting other locations. If the commissioner approves the alternate locations, the owners shall monitor at these locations to determine compliance under subdivision B 3 e (3) of this section.

(v) The recommended schedule shall include LRAA monitoring during the peak historical month for TTHM and HAA5 concentration, unless the commissioner approves another month. Once the owner has identified the peak historical month, and if the owner is required to conduct routine monitoring at least quarterly, the owner shall schedule LRAA compliance monitoring at a regular frequency of every 90 days or fewer.

(f) The owner shall use only the analytical methods specified in 12VAC5-590-440, or otherwise approved by EPA for monitoring, to demonstrate compliance.

(g) IDSE results will not be used for the purpose of determining compliance with MCLs in Table 2.13.

(3) Locational running annual average monitoring requirements.

(a) This subdivision establishes 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 chloramines for certain consecutive waterworks.

(b) This subdivision applies to community waterworks or nontransient noncommunity waterworks 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) Owner shall comply on the schedule in the following table based on the type of waterworks:

Type of Waterworks	Waterworks shall comply with Locational Running Average monitoring by:[1]
Waterworks that are not part of a combined distribution system and waterworks that serve the largest population in the combined distribution system	
Waterworks serving equal to or greater than 100,000	April 1, 2012
Waterworks serving 50,000-99,999	October 1, 2012
Waterworks serving 10,000-49,999	October 1, 2013
Waterworks serving less than 10,000	October 1, 2013 if no Cryptosporidium monitoring is required under 12VAC5-590-420 B 3 a (1) (c) or October 1, 2014 if Cryptosporidium monitoring is required under 12VAC5-590-420 B 3 a (1) (c)
Other waterworks that are part of a combined distribution system	
Consecutive waterworks or wholesale waterworks	-at the same time as the waterworks with the earliest compliance date in the combined distribution system

[1]The commissioner may grant up to an additional 24 months for compliance with MCLs and operational evaluation levels if the waterworks require capital improvements to comply with an MCL.

(i) Waterworks monitoring frequency is specified in subdivision B 3 e (3) (d) (ii) of this section.

((a)) Owners of waterworks required to conduct quarterly monitoring shall begin monitoring in the first full calendar quarter that includes the compliance date in the table in subdivision B 3 e (3) (c) of this section.

((b)) Owners of waterworks required to conduct monitoring at a frequency that is less than quarterly shall begin monitoring in the calendar month recommended in the IDSE report prepared under subdivision B 3 e (2) (d) (iii) or subdivision B 3 e (2) (d) (iv) of this section or the calendar month identified in the LRAA monitoring plan developed under subdivision B 3 e (3) (e) of this section no later than 12 months after the compliance date in the table in subdivision B 3 e (3) (c) of this section.

(ii) Owners of waterworks required to conduct quarterly monitoring shall make compliance calculations at the end of the fourth calendar quarter that follows the compliance date and at the end of each subsequent quarter (or earlier if the LRAA calculated based on fewer than four quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters). Owners of waterworks required to conduct monitoring at a frequency that is less than quarterly shall make compliance calculations beginning with the first compliance sample taken after the compliance date.

(iii) For the purpose of the schedule in subdivision B 3 e (3) (c) of this section, the commissioner has determine that the combined distribution system does not include consecutive waterworks that receive water from a wholesale waterworks only on an emergency basis or receive less than 10% of their total water consumption from a wholesale waterworks. The commissioner has also determine that the combined distribution system does not include wholesale waterworks which deliver water to a consecutive waterworks only on an emergency basis or deliver less than 10% of the total water used by a consecutive waterworks.

(d) Routine monitoring.

(i) Owners submitting an IDSE report shall begin monitoring at the locations and months the owner recommended in the IDSE report submitted under subdivision B 3 e (2) (e) of this section following the schedule in subdivision B 3 e (3) (c) of this section, unless the commissioner requires other locations or additional locations after review. If the owner submitted a 40/30 certification under subdivision B 3 e (2) (d) (v) of this section or the waterworks qualified for a very small system waiver under subdivision B 3 e (2) (d) (vi) of this section or the waterworks is a nontransient noncommunity waterworks serving less than 10,000, the owner shall monitor at the location(s) and dates identified in the monitoring plan in subdivision B 3 j of this

section, updated as required by subdivision B 3 e (3) (e) of this section.

(ii) Owners shall monitor at no fewer than the number of locations identified in the following table:

Source Water Type	Population Size Category	Monitoring Frequency[1]	Distribution System Monitoring Location Total per Monitoring Period[2]
Surface water or groundwater under the direct influence of surface water	Less than 500	per year	2
	500-3,300	per quarter	2
	3,301-9,999	per quarter	2
	10,000-49,999	per quarter	4
	50,000-249,999	per quarter	8
	250,000-999,999	per quarter	12
	1,000,000-4,999,999	per quarter	16
	Equal to or greater than 5,000,000	per quarter	20
Groundwater	Less than 500	per year	2
	500-9,999	per year	2
	10,000-99,999	per quarter	4
	100,000-499,999	per quarter	6
	Equal to or greater than 500,000	per quarter	8

[1]All owners shall monitor during month of highest DBP concentrations.

[2]Owners of waterworks on quarterly monitoring (except for surface water source or GUDI source waterworks serving 500-3,300) shall take dual sample sets every 90 days at each monitoring location. Groundwater source waterworks serving 500-9,999 (on annual monitoring) shall take dual sample sets annually at each monitoring location. Waterworks serving fewer than 500 and surface water source or GUDI source waterworks serving 500-3,300 shall take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. Waterworks serving fewer than 500 shall sample annually and surface water source or GUDI source systems serving 500-3,300 shall sample every 90 days. Only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location (and month, if monitoring annually).

(iii) Owners of waterworks not using disinfection that begin using a disinfectant other than UV light after the dates in subdivision B 3 e (2) of this section for complying with the IDSE requirements shall consult with the commissioner to identify compliance monitoring locations. Owners shall then develop a monitoring plan under subdivision B 3 e (3) (e) of this section that includes those monitoring locations.

(iv) Owners shall use an approved method listed in 12VAC5-590-440 for TTHM and HAA5 analyses. Analyses shall be conducted by laboratories that have received certification by EPA or DCLS as specified in 12VAC5-590-440.

(e) Monitoring plan.

(i) Owners shall develop and implement a monitoring plan to be kept on file for review by the commissioner and the public. The monitoring plan shall be completed no later than the date the owner conducts the initial monitoring and contain:

((a)) Monitoring locations;

((b)) Monitoring dates; and

((c)) Compliance calculation procedures.

(ii) If the owner was not required to submit an IDSE report under either subdivision B 3 e (2) (d) (iii) or subdivision B 3 e (2) (d) (iv) of this section, and the waterworks did not have sufficient monitoring locations under subdivision B 3 e (1) of this section to identify the required number of LRAA compliance monitoring locations indicated in subdivision B 3 e (2) (e) (ii) of this section, the owner shall 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. The owner shall also provide the rationale for identifying the locations as having high levels of TTHM or HAA5. If the waterworks has more monitoring locations under subdivision B 3 e (1) of this section than required for LRAA compliance monitoring in subdivision B 3 e (2) (e) (ii) of this section, the owner shall identify which locations the waterworks will use for LRAA compliance monitoring by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of LRAA compliance monitoring locations have been identified.

(iii) Owners of waterworks using surface water or groundwater under the direct influence of surface water serving more than 3,300 people shall submit a copy of the monitoring plan to the commissioner prior to the date the waterworks conducts the initial monitoring, unless the IDSE report submitted under subdivision B 3 e (2) of this section contains all the information required by this section.

(iv) Owners may revise the monitoring plan to reflect changes in treatment, distribution system operations and layout (including new service areas), or other factors that

may affect TTHM or HAA5 formation, or for reasons approved by the commissioner, after consultation with the commissioner regarding the need for changes and the appropriateness of the changes. If the owner changes monitoring locations, the owner shall replace existing compliance monitoring locations with the lowest LRAA with new locations that reflect the current distribution system locations with expected high TTHM or HAA5 levels. The commissioner may also require modifications in the monitoring plan. Owners of waterworks using surface water or groundwater under the direct influence of surface water serving more than 3,300 people shall submit a copy of the modified monitoring plan to the commissioner prior to the date the owner is required to comply with the revised monitoring plan.

(f) Reduced monitoring

(i) Owners may reduce monitoring to the level specified in the following table any time the LRAA is less than or equal to 0.040 mg/L for TTHM and less than or equal to 0.030 mg/L for HAA5 at all monitoring locations. Owners may only use data collected under the provisions of this subdivision or subdivision B 3 e (1) of this section to qualify for reduced monitoring. In addition, the source water annual average TOC level, before any treatment, shall be less than or equal to 4.0 mg/L at each treatment plant treating surface water or ground water under the direct influence of surface water, based on monitoring conducted under either subdivision B 3 e (1) (b) (vi) or B 3 i of this section.

Source Water Type	Population Size Category	Monitoring Frequency[1]	Distribution System Monitoring Location per Monitoring Period
Surface water or groundwater under the direct influence of surface water	Less than 500		monitoring may not be reduced
	500-3,300	per year	1 TTHM and 1 HAA5 sample: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter.
	3,301-9,999	per year	2 dual sample sets: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement
	10,000-49,999	per quarter	2 dual sample sets at the locations with the highest TTHM and highest HAA5 LRAAs
	50,000-249,999	per quarter	4 dual sample sets - at the locations with the two highest TTHM and two highest HAA5 LRAAs
	250,000-999,999	per quarter	6 dual sample sets - at the locations with the three highest TTHM and three highest HAA5 LRAAs
	1,000,000-4,999,999	per quarter	8 dual sample sets - at the locations with the four highest TTHM and four highest HAA5 LRAAs
	Equal to or greater than 5,000,000	per quarter	10 dual sample sets - at the locations with the five highest TTHM and five highest HAA5 LRAAs
Groundwater	Less than 500	every third year	1 TTHM and 1 HAA5 sample: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter.

Source Water Type	Population Size Category	Monitoring Frequency[1]	Distribution System Monitoring Location per Monitoring Period
	500-9,999	per year	1 TTHM and 1 HAA5 sample: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter.
	10,000-99,999	per year	2 dual sample sets: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement
	100,000-499,999	per quarter	2 dual sample sets; at the locations with the highest TTHM and highest HAA5 LRAAs
	Equal to or greater than 500,000	per quarter	4 dual sample sets at the locations with the two highest TTHM and two highest HAA5 LRAAs

[1]Owners of waterworks on quarterly monitoring shall take dual sample sets every 90 days.

(ii) owners may remain on reduced monitoring as long as the TTHM LRAA is less than or equal to 0.040 mg/L and the HAA5 LRAA is less than or equal to 0.030 mg/L at each monitoring location (for waterworks with quarterly reduced monitoring) or each TTHM sample is less than or equal to 0.060 mg/L and each HAA5 sample is less than or equal to 0.045 mg/L (for waterworks with annual or less frequent monitoring). In addition, the source water annual average TOC level, before any treatment, shall be less than or equal to 4.0 mg/L at each treatment plant treating surface water or ground water under the direct influence of surface water, based on monitoring conducted under either subdivision B 3 e (1) (b) (vi) or B 3 i of this section.

(iii) If the LRAA based on quarterly monitoring at any monitoring location exceeds either 0.040 mg/L for TTHM or 0.030 mg/L for HAA5 or if the annual (or less frequent) sample at any location exceeds either 0.060 mg/L for TTHM or 0.045 mg/L for HAA5, or if the source water annual average TOC level, before any treatment, is greater than 4.0 mg/L at any treatment plant treating surface water or ground water under the direct influence of surface water, the owner shall resume routine monitoring under subdivision B 3 e (3) (d) of this section or begin increased monitoring if subdivision B 3 e (3) (g) of this section applies.

(iv) The commissioner may return the waterworks to routine monitoring at the commissioner's discretion.

(v) A waterworks may remain on reduced monitoring after the dates identified in subdivision B 3 e (3) (c) of this section for compliance with this section only if the waterworks qualifies for a 40/30 certification under subdivision B 3 e (2) (d) (v) of this section or has received a very small system waiver under subdivision B 3 e (2) (d) (vi) of this section, plus the waterworks meets the reduced monitoring criteria in subdivision B 3 e (3) (f) of this section, and the owner did not change or add monitoring locations from those used for compliance monitoring under subdivision B 3 e (1) of this section. If the monitoring locations under this subdivision differ from the monitoring locations under subdivision B 3 e (1) of this section, the owner may not remain on reduced monitoring after the dates identified in subdivision B 3 e (3) (c) of this section for compliance with this subdivision.

(vi) Owners shall use an approved method listed in 12VAC5-590-440 for TTHM and HAA5 analyses. Analyses shall be conducted by laboratories that have received certification by EPA or DCLS as specified in 12VAC5-590-440.

(g) Increased Monitoring

(i) Owners of waterworks required to monitor at a particular location annually or less frequently than annually under subdivision B 3 e (3) (d) or subdivision B 3 e (3) (f) of this section, shall increase monitoring to dual sample sets once per quarter (taken every 90 days) at all locations if a TTHM sample is greater than 0.080 mg/L or a HAA5 sample is greater than 0.060 mg/L at any location.

(ii) A waterworks is in violation of the MCL when the LRAA exceeds the MCLs in Table 2.13, calculated based on four consecutive quarters of monitoring (or the LRAA calculated based on fewer than four quarters of data if the MCL would be exceeded regardless of the monitoring results of subsequent quarters). Waterworks are in violation of the monitoring requirements for each quarter

that a monitoring result would be used in calculating an LRAA if the owner fails to monitor.

(iii) Owners may return to routine monitoring once the waterworks has conducted increased monitoring for at least four consecutive quarters and the LRAA for every monitoring location is less than or equal to 0.060 mg/L for TTHM and less than or equal to 0.045 mg/L for HAA5.

(iv) Owners of waterworks on increased monitoring under subdivision e (1) in this section shall remain on increased monitoring until the waterworks qualify for a return to routine monitoring under subdivision B 3 e (3) (g) (iii) of this section. The owner shall conduct increased monitoring under subdivision B 3 e (3) (g) of this section at the monitoring locations in the monitoring plan developed under subdivision B 3 e (3) (e) of this section beginning at the date identified in subdivision B 3 e (3) (c) of this section for compliance with this subdivision and remain on increased monitoring until the waterworks qualifies for a return to routine monitoring under subdivision B 3 e (3) (g) (iii) of this section.

(v) Owners shall use an approved method listed in 12VAC5-590-440 for TTHM and HAA5 analyses. Analyses shall be conducted by laboratories that have received certification by EPA or DCLS as specified in 12VAC5-590-440.

f. Chlorite. Owners of community and nontransient noncommunity waterworks using chlorine dioxide, for disinfection or oxidation, shall conduct monitoring for chlorite.

(1) Routine monitoring.

(a) Daily monitoring. Owners shall take daily samples at the entrance to the distribution system. For any daily sample that exceeds the chlorite PMCL in Table 2.13, the owner shall take additional samples in the distribution system the following day at the locations required by subdivision B 3 f (1) (c) of this section, in addition to the sample required at the entrance to the distribution system.

(b) Monthly monitoring. Owners shall take a three-sample set each month in the distribution system. The owner shall take one sample at each of the following locations: near the first customer, at a location representative of average residence time, and at a location reflecting maximum residence time in the distribution system. Any additional routine sampling shall be conducted in the same manner (as three-sample sets, at the specified locations). The owner may use the results of additional monitoring conducted under subdivision B 3 f (1) (c) of this section to meet the requirement for monitoring in this paragraph.

(c) Additional monitoring requirements. On each day following a routine sample monitoring result that exceeds the chlorite PMCL in Table 2.13 at the entrance to the distribution system, the owner is required to take three chlorite distribution system samples at the following locations: as close to the first customer as possible, in a location representative of average residence time, and as close to the end of the distribution system as possible (reflecting maximum residence time in the distribution system).

(2) Reduced monitoring.

(a) Chlorite monitoring at the entrance to the distribution system required by subdivision B 3 f (1) (a) of this section may not be reduced.

(b) Chlorite monitoring in the distribution system required by subdivision B 3 f (1) (b) of this section may be reduced to one three-sample set per quarter after one year of monitoring where no individual chlorite sample taken in the distribution system under subdivision B 3 f (1) (b) of this section has exceeded the chlorite PMCL in Table 2.13 and the owner has not been required to conduct monitoring under subdivision B 3 f (1) (c) of this section. The owner may remain on the reduced monitoring schedule until either any of the three individual chlorite samples taken quarterly in the distribution system under subdivision B 3 f (1) (b) of this section exceeds the chlorite PMCL or the owner is required to conduct monitoring under subdivision B 3 f (1) (c) of this section, at which time the owner shall revert to routine monitoring.

g. Bromate.

(1) The owner of a community or nontransient noncommunity waterworks treatment plant using ozone, for disinfection or oxidation, shall take one sample per month and analyze it for bromate. The owner shall take samples monthly at the entrance to the distribution system while the ozonation system is operating under normal conditions.

(2) Reduced monitoring.

(a) Until March 31, 2009, owners of waterworks required to analyze for bromate may reduce monitoring from monthly to quarterly, if the waterworks average source water bromide concentration is less than 0.05 mg/L based on representative monthly bromide measurements for one year. The owner may remain on reduced bromate monitoring until the running annual average source water bromide concentration, computed quarterly, is equal to or greater than 0.05 mg/L based on representative monthly measurements. If the running annual average source water bromide concentration is equal to or greater than 0.05 mg/L, the owner shall resume routine monitoring required by subdivision B 3 g (1) of this section in the following month.

(b) Beginning April 1, 2009, owners may no longer use the provisions of subdivision B 3 g (2) (a) of this section

to qualify for reduced monitoring. An owner required to analyze for bromate may reduce monitoring from monthly to quarterly, if the waterworks running annual average bromate concentration is equal to or less than 0.0025 mg/L based on monthly bromate measurements under subdivision B 3 g (1) of this section for the most recent four quarters, with samples analyzed in accordance with 12VAC5-590-440. If a waterworks has qualified for reduced bromate monitoring under subdivision B 3 g (2) (a) of this section, the owner may remain on reduced monitoring as long as the running annual average of quarterly bromate samples is equal to or less than 0.0025 mg/L based on samples analyzed in accordance with 12VAC5-590-440. If the running annual average bromate concentration is greater than 0.0025 mg/L, the owner shall resume routine monitoring required by subdivision B 3 g (1) of this section.

(3) Bromide. Owners of waterworks required to analyze for bromate may reduce bromate monitoring from monthly to once per quarter, if the owner demonstrates that the average source water bromide concentration is less than 0.05 mg/L based upon representative monthly measurements for one year. The owner shall continue bromide monitoring to remain on reduced bromate monitoring.

h. Monitoring requirements for disinfectant residuals.

(1) Chlorine and chloramines.

(a) Owners of waterworks that use chlorine or chloramines shall measure the residual disinfectant level in the distribution system at the same point in the distribution system and at the same time as total coliforms are sampled, as specified in subsection A. Owners of waterworks that use surface water or groundwater under the direct influence of surface water may use the results of residual disinfectant concentration sampling found in subdivision B 7 c (1) of this section in lieu of taking separate samples.

(b) Residual disinfectant level monitoring may not be reduced.

(2) Chlorine dioxide.

(a) Owners of waterworks that use chlorine dioxide for disinfection or oxidation shall take daily samples at the entrance to the distribution system. For any daily sample that exceeds the MRDL in Table 2.12, the owner shall take samples in the distribution system the following day at the locations required by subdivision B 3 h (2) (b) of this section, in addition to the sample required at the entrance to the distribution system.

(b) On each day following a routine sample monitoring result that exceeds the MRDL in Table 2.12, the owner is required to take three chlorine dioxide distribution system samples. If chlorine dioxide or chloramines are used to maintain a disinfectant residual in the distribution system, or if chlorine is used to maintain a disinfectant residual in the distribution system and there are no disinfection addition points after the entrance to the distribution system (i.e., no booster chlorination), the owner shall take three samples as close to the first customer as possible, at intervals of at least six hours. If chlorine is used to maintain a disinfectant residual in the distribution system and there are one or more disinfection addition points after the entrance to the distribution system (i.e., booster chlorination), the owner shall take one sample at each of the following locations: as close to the first customer as possible, in a location representative of average residence time, and as close to the end of the distribution system as possible (reflecting maximum residence time in the distribution system).

(c) Chlorine dioxide monitoring may not be reduced.

i. Monitoring requirements for disinfection byproduct precursors (DBPP).

(1) Owners of community or nontransient noncommunity waterworks using surface water or groundwater under the direct influence of surface water and using conventional filtration treatment (as defined in 12VAC5-590-10) shall monitor each treatment plant for TOC no later than the point of combined filter effluent turbidity monitoring and representative of the treated water. All owners required to monitor under subdivision (B 3 i (1)) shall also monitor for TOC in the source water prior to any treatment at the same time as monitoring for TOC in the treated water. These samples (source water and treated water) are referred to as paired samples. At the same time as the source water sample is taken, all owners shall monitor for alkalinity in the source water prior to any treatment. Owners shall take one paired sample and one source water alkalinity sample per month per plant at a time representative of normal operating conditions and influent water quality.

(2) Owners of community or nontransient noncommunity waterworks that use surface water or groundwater under the direct influence of surface water with an average treated water TOC of less than 2.0 mg/L for two consecutive years, or less than 1.0 mg/L for one year, may reduce monitoring for both TOC and alkalinity to one paired sample and one source water alkalinity sample per plant per quarter. The owners shall revert to routine monitoring in the month following the quarter when the annual average treated water TOC equal to or greater than 2.0 mg/L.

j. The owner of each waterworks required to monitor under subdivision B 3 of this section shall develop and implement a monitoring plan. The owner shall maintain the plan and make it available for inspection by the commissioner and the general public no later than 30 days following the applicable compliance dates in subdivision B 3 a of this section. The owners of all

community or nontransient noncommunity waterworks that use surface water or groundwater under the direct influence of surface water serving more than 3,300 people shall submit a copy of the monitoring plan to the commissioner no later than the date of the first report required under 12VAC5-590-530 A. The commissioner may also require the plan to be submitted by any other owner. After review, the commissioner may require changes in any plan elements. The plan shall include at least the following elements:

(1) Specific locations and schedules for collecting samples for any parameters included in subdivision B 3 of this section.

(2) How the owner will calculate compliance with PMCLs, MRDLs, and treatment techniques.

(3) The sampling plan for a consecutive waterworks shall reflect the entire consecutive distribution system.

4. Unregulated contaminants (UCs). Owners of all community and nontransient noncommunity waterworks shall sample for the contaminants listed in Table 2.6 and Table 2.7 as follows:

a. Table 2.6—Group A

(1) Owners of waterworks that use a surface water source in whole or in part shall sample at the entry points to the distribution system which is representative of each source, after treatment (hereafter called a sampling point). The minimum number of samples is one year of consecutive quarterly samples per sampling point beginning in accordance with Table 2.8.

(2) Owners of waterworks that use groundwater shall sample at points of entry to the distribution system which is representative of each source (hereafter called a sampling point). The minimum number of samples is one sample per sampling point beginning in accordance with Table 2.8.

(3) The commissioner may require a confirmation sample for positive or negative results.

(4) Owners of waterworks serving less than 150 connections may inform the commissioner, in writing, that their waterworks is available for sampling instead of performing the required sampling.

(5) All waterworks required to sample under this section shall repeat the sampling at least every five years.

b. Table 2.6—Group B and Table 2.7

(1) The owner of each community and nontransient noncommunity waterworks shall take four consecutive quarterly samples at the entry points to the distribution system which is representative of each source (hereafter called a sampling point) for each contaminant listed in Table 2.6 Group B and report the results to the commissioner. Monitoring shall be completed by December 31, 1995.

(2) The owner of each community and nontransient noncommunity waterworks shall take one sample at each sampling point for each contaminant listed in Table 2.7 and report the results to the commissioner. Monitoring shall be completed by December 31, 1995.

(3) The owner of each community and nontransient noncommunity waterworks may apply to the commissioner for a waiver from the monitoring requirements of subdivisions B 4 b (1) and (2) of this section for the contaminants listed in Table 2.6 Group B and Table 2.7.

(4) The commissioner may grant a waiver for the requirement of subdivision B 4 b (1) of this section based on the criteria specified in subdivision B 2 f of this section. The commissioner may grant a waiver from the requirement of subdivision B 4 b (2) of this section if previous analytical results indicate contamination would not occur, provided this data was collected after January 1, 1990.

(5) If the waterworks utilizes more than one source and the sources are combined before distribution, the owner shall sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(6) The commissioner may require a confirmation sample for positive or negative results.

(7) Instead of performing the monitoring required by this section, the owner of a community waterworks or nontransient noncommunity waterworks serving fewer than 150 service connections may send a letter to the commissioner stating that the waterworks is available for sampling. This letter shall be sent to the commissioner by January 1, 1994. The owner shall not send such samples to the commissioner unless requested to do so by the commissioner.

(8) All waterworks required to sample under this subdivision shall repeat the sampling at least every five years.

5. Reserved.

6. Reserved.

7. Monitoring filtration and disinfection.

a. The owner of a waterworks that uses a surface water source or a groundwater source under the direct influence of surface water and provides filtration treatment shall monitor in accordance with this section beginning June 29, 1993, or when filtration is installed, whichever is later.

b. Turbidity measurements as required by 12VAC5-590-370 C shall be performed on representative samples of the filtered water every four hours (or more frequently) that the waterworks serves water to the public. An owner may substitute continuous turbidity monitoring for grab sample monitoring if it validates the continuous

measurement for accuracy on a regular basis using a protocol approved by the commissioner. For any waterworks using slow sand filtration or filtration treatment other than conventional treatment, direct filtration, or diatomaceous earth filtration, the office may reduce the sampling frequency to once per day if it determines that less frequent monitoring is sufficient to indicate effective filtration performance. For waterworks serving 500 or fewer persons, the commissioner may reduce the turbidity sampling frequency to once per day, regardless of the type of filtration treatment used, if the commissioner determines that less frequent monitoring is sufficient to indicate effective filtration performance.

(1) In addition to the above, as of January 1, 2001, waterworks serving at least 10,000 people and as of January 1, 2005, waterworks serving less than 10,000 people supplied by surface water or groundwater under the direct influence of surface water using conventional filtration treatment or direct filtration shall conduct continuous monitoring of turbidity for each individual filter, using an approved method in 12VAC5-590-440. The turbidimeter shall be calibrated using the procedure specified by the manufacturer. The owner shall record the results of individual filter turbidity monitoring every 15 minutes.

(2) If there is a failure in the continuous turbidity monitoring equipment, the owner shall conduct grab sampling every four hours in lieu of continuous monitoring but for no more than five working days (for waterworks serving at least 10,000 people) or 14 days (for waterworks serving less than 10,000 people) following the failure of the equipment.

(3) If a waterworks serving less than 10,000 people consists of two or fewer filters, continuous monitoring of the combined filter effluent may be used in lieu of individual filter monitoring.

c. The residual disinfectant concentration of the water entering the distribution system shall be monitored continuously, and the lowest value shall be recorded each day, except that if there is a failure in the continuous monitoring equipment, grab sampling every four hours may be conducted in lieu of continuous monitoring, but for no more than five working days following the failure of the equipment, and owners of waterworks serving 3,300 or fewer persons may take grab samples in lieu of continuous monitoring on an ongoing basis at the frequencies each day prescribed below:

Table 2.5
Grab Sample Monitoring Frequency

Waterworks Size By Population	Samples/Day[1]
500 or less	1
501 to 1,000	2
1,000 to 2,500	3
2,501 to 3,300	4

[1]The day's samples cannot be taken at the same time. The sampling intervals are subject to commissioner's review and approval. If at any time the residual disinfectant concentration falls below 0.2 mg/L in a waterworks using grab sampling in lieu of continuous monitoring, the waterworks owner shall take a grab sample every four hours until the residual disinfectant concentration is equal to or greater than 0.2 mg/L.

(1) The residual disinfectant concentration shall be measured at least at the same points in the distribution system and at the same time as total coliforms are sampled, as specified in subsection A of this section, except that the district engineer may allow an owner which uses both a surface water source or a groundwater source under direct influence of surface water, and a groundwater source to take disinfectant residual samples at points other than the total coliform sampling points if the division determines that such points are more representative of treated (disinfected) water quality within the distribution system. Heterotrophic bacteria, measured as heterotrophic plate count (HPC) as specified in 12VAC5-590-420 B may be measured in lieu of residual disinfectant concentration.

(2) If the commissioner determines, based on site-specific considerations, that a waterworks has no means for having a sample transported and analyzed for HPC by a certified laboratory under the requisite time and temperature conditions and that the waterworks is providing adequate disinfection in the distribution system, the requirements of subdivision B 7 b (1) of this section do not apply to that waterworks.

d. The following information on the samples taken in the distribution system in conjunction with total coliform monitoring pursuant to 12VAC5-590-420 B shall be reported monthly to the district engineer by the owner:

(1) Number of instances where the residual disinfectant concentration is measured;

(2) Number of instances where the residual disinfectant concentration is not measured but HPC is measured;

(3) Number of instances where the residual disinfectant concentration is measured but not detected and no HPC is measured;

(4) Number of instances where no residual disinfectant concentration is detected and where the HPC is greater than 500/mL;

(5) Number of instances where the residual disinfectant concentration is not measured and HPC is greater than 500/mL.

(6) For the current and previous month the waterworks serves water to the public, the value of "V" in percent in the following formula:

V = (c + d + e) / (a + b) X 100

where

a = the value in subdivision B 7 d (1) of this section,

b = the value in subdivision B 7 d (2) of this section,

c = the value in subdivision B 7 d (3) of this section,

d = the value in subdivision B 7 d (4) of this section,

e = the value in subdivision B 7 d (5) of this section,

(7) If the commissioner determines, based on site-specific considerations, that an owner has no means for having a sample transported and analyzed for HPC by a certified laboratory within the requisite time and temperature conditions and that the waterworks is providing adequate disinfection in the distribution system, the requirements of subdivision B 7 c (1) of this section do not apply.

e. An owner need not report the data listed in 12VAC5-590-530 ~~C~~ E 2 a if all data listed in 12VAC5-590-530 ~~C~~ E 2 a through E 2 c remain on file at the waterworks and the district engineer determines that the owner has submitted all the information required by 12VAC5-590-530 ~~C~~ E 2 a through c for at least 12 months.

8. Operational. Owners may be required by the commissioner to collect additional samples to provide quality control for any treatment processes that are employed.

C. Physical. All samples for turbidity analysis shall be taken at a representative entry point or points to the water distribution system unless otherwise specified. Turbidity samples shall be analyzed in accordance with 12VAC5-590-480 B 1 a, at least once per day at all waterworks that use surface water sources or groundwater sources under the direct influence of surface water.

D. Radiological. The location of sampling points, the radionuclides measured in community waterworks, the frequency, and the timing of sampling within each compliance period shall be established or approved by the commissioner. The commissioner may increase required monitoring where necessary to detect variations within the waterworks. Failure to comply with the sampling schedules in this section will require public notification pursuant to 12VAC5-590-540.

Community waterworks owners shall conduct monitoring to determine compliance with the PMCLs in Table 2.5 and 12VAC5-590-400 in accordance with this section.

1. Monitoring and compliance requirements for gross alpha particle activity, radium-226, radium-228, and uranium.

a. Community waterworks owners shall conduct initial monitoring to determine compliance with 12VAC5-590-400 B 2, ~~12VAC5-590-400~~ B 3, and ~~12VAC5-590-400~~ B 4 by December 31, 2007. For the purposes of monitoring for gross alpha particle activity, radium-226, radium-228, uranium, and beta particle and photon radioactivity in drinking water, "detection limit" is defined as in Appendix B of this chapter.

(1) Applicability and sampling location for existing community waterworks or sources. The owners of all existing community waterworks using ground water, surface water or waterworks using both ground and surface water shall sample at every entry point to the distribution system that is representative of all sources being used under normal operating conditions. The community waterworks owner shall take each sample at the same entry point unless conditions make another sampling point more representative of each source.

(2) Applicability and sampling location for new community waterworks or sources. All new community waterworks or community waterworks that use a new source of water shall begin to conduct initial monitoring for the new source within the first quarter after initiating use of the source. Community waterworks owners shall conduct more frequent monitoring when directed by the commissioner 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.

b. Initial monitoring: Community waterworks owners shall conduct initial monitoring for gross alpha particle activity, radium-226, radium-228, and uranium as follows:

(1) Community waterworks without acceptable historical data, as defined below, shall collect four consecutive quarterly samples at all entry points before December 31, 2007.

(2) Grandfathering of data: The commissioner may allow historical monitoring data collected at an entry point to satisfy the initial monitoring requirements for that entry point, for the following situations:

(a) To satisfy initial monitoring requirements, a community waterworks owner having only one entry point to the distribution system may use the monitoring data from the last compliance monitoring period that began between June 2000 and December 8, 2003.

(b) To satisfy initial monitoring requirements, a community waterworks owner with multiple entry points and having appropriate historical monitoring data for each entry point to the distribution system may use the monitoring data from the last compliance monitoring period that began between June 2000 and December 8, 2003.

(3) For gross alpha particle activity, uranium, radium-226, and radium-228 monitoring, the commissioner may waive the final two quarters of initial monitoring for an

entry point if the results of the samples from the previous two quarters are below the method detection limit specified in Appendix B.

(4) If the average of the initial monitoring results for an entry point is above the PMCL, the community waterworks owner shall collect and analyze quarterly samples at that entry point until the owner has results from four consecutive quarters that are at or below the PMCL, unless the community waterworks owner enters into another schedule as part of a formal compliance agreement with the commissioner.

c. Reduced monitoring: The commissioner may allow community waterworks owners to reduce the future frequency of monitoring from once every three years to once every six or nine years at each entry point, based on the following criteria:

(1) If the average of the initial monitoring results for each contaminant (i.e., gross alpha particle activity, uranium, radium-226, or radium-228) is below the method detection limit specified in Appendix B, the community waterworks owner shall collect and analyze for that contaminant using at least one sample at that entry point every nine years.

(2) For gross alpha particle activity and uranium, if the average of the initial monitoring results for each contaminant is at or above the method detection limit specified in Appendix B but at or below 1/2 of the PMCL, the community waterworks owner shall collect and analyze for that contaminant using at least one sample at that entry point every six years. For combined radium-226 and radium-228, the analytical results shall be combined. If the average of the combined initial monitoring results for radium-226 and radium-228 is at or above the method detection limit specified in Appendix B but at or below 1/2 the PMCL, the community waterworks owner shall collect and analyze for that contaminant using at least one sample at that entry point every six years.

(3) For gross alpha particle activity and uranium, if the average of the initial monitoring results for each contaminant is above 1/2 the PMCL but at or below the PMCL, the community waterworks owner shall collect and analyze at least one sample at that entry point every three years. For combined radium-226 and radium-228, the analytical results shall be combined. If the average of the combined initial monitoring results for radium-226 and radium-228 is above 1/2 the PMCL but at or below the MPCL, the community waterworks owner shall collect and analyze at least one sample at that entry point every three years.

(4) Community waterworks owners shall use the samples collected during the reduced monitoring period to determine the monitoring frequency for subsequent monitoring periods (e.g., if a community waterworks' entry point is on a nine-year monitoring period, and the sample result is above 1/2 the PMCL, then the next monitoring period for that entry point is three years).

(5) If a community waterworks owner has a monitoring result that exceeds the PMCL while on reduced monitoring, the community waterworks owner shall collect and analyze quarterly samples at that entry point until the community waterworks owner has results from four consecutive quarters that are below the PMCL, unless the community waterworks enters into another schedule as part of a formal compliance agreement with the commissioner.

d. Compositing: To fulfill quarterly monitoring requirements for gross alpha particle activity, radium-226, radium-228, or uranium, a community waterworks owner may composite up to four consecutive quarterly samples from a single entry point if analysis is done within a year of the first sample. The commissioner will treat analytical results from the composited sample as the average analytical result to determine compliance with the PMCLs and the future monitoring frequency. If the analytical result from the composited sample is greater than 1/2 the PMCL, the commissioner may direct the community waterworks owner to take additional quarterly samples before allowing the community waterworks owner to sample under a reduced monitoring schedule.

e. 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% (1.65, where is the standard deviation of the net counting rate of the sample) for radium-226 and uranium. When a community waterworks owner 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 the detection limit as specified in Appendix B, 1/2 the detection limit will be used to determine compliance and the future monitoring frequency.

2. Monitoring and compliance requirements for beta particle and photon radioactivity. To determine compliance with the maximum contaminant levels in 12VAC5-590-400 B 5 for beta particle and photon radioactivity, a community waterworks owner shall monitor at a frequency as follows:

a. Community waterworks owners (using surface or groundwater) designated by the commissioner as vulnerable shall sample for beta particle and photon radioactivity. Community waterworks owners shall collect quarterly samples for beta emitters and annual samples for tritium and strontium-90 at each entry point to the distribution system, beginning within one quarter after being notified by the commissioner. Community waterworks already designated by the commissioner shall continue to sample until the commissioner 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 an entry point has a running annual average (computed quarterly) less than or equal to 50 pCi/L (screening level), the commissioner may reduce the frequency of monitoring at that entry point to once every three years. Community waterworks owners shall collect all samples required in subdivision 2 a of this subsection during the reduced monitoring period.

(2) For community waterworks in the vicinity of a nuclear facility, the commissioner may allow the community waterworks owners to utilize environmental surveillance data collected by the nuclear facility in lieu of monitoring at the community waterworks' entry point(s), where the commissioner determines if such data is applicable to a particular community waterworks. In the event that there is a release from a nuclear facility, community waterworks owners which are using surveillance data shall begin monitoring at the community waterworks' entry point(s) in accordance with subdivision 2 a of this subsection.

b. Community waterworks owners (using surface or groundwater) designated by the commissioner as utilizing waters contaminated by effluents from nuclear facilities shall sample for beta particle and photon radioactivity. Community waterworks owners shall 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, beginning within one quarter after being notified by the commissioner. Owners of community waterworks already designated by the commissioner as using waters contaminated by effluents from nuclear facilities shall continue to sample until the commissioner reviews and either reaffirms or removes the designation.

(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.

(2) For iodine-131, a composite of five consecutive daily samples shall be analyzed once each quarter. As directed by the commission, more frequent monitoring shall be conducted when iodine-131 is identified in the finished water.

(3) Annual monitoring for strontium-90 and tritium shall be conducted by means of the analysis of a composite of four consecutive quarterly samples or analysis of four quarterly samples. The latter procedure is recommended.

(4) 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 15 pCi/L (screening level), the commissioner may reduce the frequency of monitoring at that sampling point to every three years. Community waterworks owners shall collect all samples required in subdivision 2 b of this subsection during the reduced monitoring period.

(5) For community waterworks in the vicinity of a nuclear facility, the commissioner may allow the community waterworks owner to utilize environmental surveillance data collected by the nuclear facility in lieu of the monitoring at the community waterworks' entry point(s), where the commissioner determines such data is applicable to a particular waterworks. In the event that there is a release from a nuclear facility, community waterworks owners which are using surveillance data shall begin monitoring at the community waterworks' entry point(s) in accordance with subdivision 2 b of this subsection.

c. Owners of community waterworks designated by the commissioner to monitor for beta particle and photon radioactivity ~~can not~~ cannot apply to the commissioner for a waiver from the monitoring frequencies specified in subdivision 2 a or 2 b of this subsection.

d. Community waterworks owners may analyze for naturally occurring potassium-40 beta particle activity from the same or equivalent sample used for the gross beta particle activity analysis. Community waterworks owners are allowed to subtract the potassium-40 beta particle activity value from the total gross beta particle activity value to determine if the screening level is exceeded. The potassium-40 beta particle activity shall be calculated by multiplying elemental potassium concentrations (in mg/L) by a factor of 0.82.

e. If the gross beta particle activity minus the naturally occurring potassium-40 beta particle activity exceeds the appropriate screening level, an analysis of the sample shall be performed to identify the major radioactive constituents present in the sample and the appropriate doses shall be calculated and summed to determine compliance with 12VAC5-590-400 B 5 a, using the formula in 12VAC590-400 B 5 b. Doses shall also be calculated and combined for measured levels of tritium and strontium to determine compliance.

f. Community waterworks owners shall monitor monthly at the entry point(s) which exceed the maximum

contaminant level in 12VAC5-590-400 B 5 beginning the month after the exceedance occurs. Community waterworks owners shall continue monthly monitoring until the community waterworks has established, by a rolling average of three monthly samples, that the PMCL is being met. Community waterworks owners who establish that the PMCL is being met shall return to quarterly monitoring until they meet the requirements set forth in subdivision 2 a (1) or 2 b (4) of this subsection.

3. General monitoring and compliance requirements for radionuclides.

a. The commissioner may require more frequent monitoring than specified in subdivisions 1 and 2 of this subsection, or may require confirmation samples at his discretion. The results of the initial and confirmation samples shall be averaged for use in compliance determinations.

b. Each community waterworks owner shall monitor at the time designated by the commissioner during each compliance period.

c. Compliance: Compliance with 12VAC5-590-400 B 2 through ~~12VAC5-590-400~~ B 5 will be determined based on the analytical results(s) obtained at each entry point. If one entry point is in violation of a PMCL, the community waterworks is in violation of the PMCL.

(1) For community waterworks monitoring more than once per year, compliance with the PMCL is determined by a running annual average at each entry point. If the average of any entry point is greater than the PMCL, then the community waterworks is out of compliance with the PMCL.

(2) For community waterworks monitoring more than once per year, if any sample result will cause the running average to exceed the PMCL at any entry point, the community waterworks is out of compliance with the PMCL immediately.

(3) Community waterworks owners shall 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.

(4) If a community waterworks owner does not collect all required samples when compliance is based on a running annual average of quarterly samples, compliance will be based on the running average of the samples collected.

(5) If a sample result is less than the method detection limit as specified in Appendix B, zero will be used to calculate the annual average, unless a gross alpha particle activity is being used in lieu of radium-226 and/or uranium. If the gross alpha particle activity result is less than the method detection limit as specified in Appendix B, 1/2 the method detection limit will be used to calculate the annual average.

d. The commissioner has the discretion to delete results of obvious sampling or analytic errors.

e. If the PMCL for radioactivity set forth in 12VAC5-590-400 B 2 through ~~12VAC5-590-400~~ B 5 is exceeded, the owner of a community waterworks shall give notice to the commissioner pursuant to 12VAC5-590-530 and to the public as required by 12VAC5-590-540.

12VAC5-590-379. Groundwater ~~system~~ waterworks monitoring.

A. General monitoring requirements.

1. Owners of groundwater ~~systems~~ waterworks, including consecutive and wholesale waterworks, shall conduct monitoring in accordance with this section, except that requirements do not apply to waterworks that combine all of their groundwater with surface water or with groundwater under the direct influence of surface water prior to treatment in accordance with 12VAC5-590-420.

2. Source water monitoring for owners of groundwater ~~systems~~ waterworks that do not provide 4-log treatment of viruses for their groundwater sources before or at the first customer are described in subsection B of this section.

3. Owners of groundwater ~~systems~~ waterworks that provide at least 4-log treatment of viruses before or at the first customer are required to conduct compliance monitoring in accordance with 12VAC5-590-421 C.

4. Owners of groundwater ~~systems~~ waterworks that have confirmed fecal contamination, as determined by source water monitoring conducted under subsection B of this section or have been notified of a significant deficiency as described in 12VAC5-590-350 D shall implement one or more of the corrective actions outlined in 12VAC5-590-421 A 1, as prescribed by the commissioner.

5. Owners of groundwater ~~systems~~ waterworks that do not provide 4-log treatment of viruses before or at the first customer and are not performing compliance monitoring shall provide triggered source water monitoring plans to the commissioner.

6. Any source water sample collected in accordance with this section shall be analyzed for E. coli using one of the analytical methods in 40 CFR 141.402(c).

B. Groundwater source microbial monitoring.

1. Triggered source water monitoring.

a. General requirements. Groundwater ~~system~~ waterworks owners shall conduct triggered source water monitoring if both the conditions identified in subdivisions B 1 a (1) and (2) of this section exist.

(1) The groundwater ~~system~~ waterworks does not provide at least 4-log treatment of viruses before or at the first customer for each groundwater source; and

(2) The groundwater ~~system~~ waterworks owner is notified that a sample collected under 12VAC5-590-370

A is total coliform-positive and the sample is not invalidated under 12VAC5-590-380 E.

b. Sampling requirements. Groundwater ~~system~~ waterworks owners shall collect, within 24 hours of notification of the total coliform-positive sample, one groundwater source sample from each groundwater source in use at the time the total coliform-positive sample was collected under 12VAC5-590-370 A, except as provided in this subdivision B 1 b.

(1) The commissioner may extend the 24-hour time limit on a case-by-case basis if the owner cannot collect the groundwater source water sample within 24 hours due to circumstances beyond his control. In the case of an extension, the commissioner shall specify how much time the owner has to collect the sample.

(2) If approved by the commissioner, owners of waterworks with more than one groundwater source may meet the requirements of this subdivision B 1 ~~of this section~~ by sampling a representative groundwater source or sources. Owners shall submit, for the commissioner's approval, a triggered source water monitoring plan that identifies one or more groundwater sources that are representative of each monitoring site in the waterworks' bacteriological sample siting report or that identifies groundwater sources that are hydro-geologically similar and clearly identifies which sources will be sampled.

(3) A groundwater system serving 1,000 people or fewer may use a triggered source water sample collected from a groundwater source to meet both the requirements of 12VAC5-590-380 and to satisfy the monitoring requirements of this subdivision B 1 ~~of this section~~ for a groundwater source.

c. Additional requirements.

(1) If an E. ~~coli-positive~~ coli-positive triggered source water sample collected under this subdivision B 1 ~~of this section~~ is not invalidated under subdivision B 2 of this section, the groundwater ~~system~~ waterworks owner shall provide public notification and collect five additional source water samples from the same source within 24 hours of being notified of the E. ~~coli-positive~~ coli-positive sample.

(a) If the E. coli-positive triggered source water sample is also used as a repeat sample, then an E. coli PMCL violation is incurred under 12VAC5-590-380 B 1 a.

(b) If a waterworks takes more than one repeat sample at the monitoring location required for triggered source water monitoring, then the number of additional source water samples required under subdivision B 1 c (1) of this section may be reduced by the number of repeat samples taken at that location that were not E. coli positive.

(2) If any of the five additional samples are E. coli positive, the groundwater system owner shall comply with the treatment technique requirements of 12VAC5-590-421.

d. Consecutive and wholesale waterworks.

(1) A consecutive groundwater ~~system~~ waterworks owner that has a total coliform-positive sample collected in accordance with 12VAC5-590-370 A shall notify the wholesale waterworks owner and the district engineer within 24 hours of being notified of the total coliform-positive sample.

(2) A wholesale groundwater ~~system~~ waterworks owner shall comply with the following:

(a) A wholesale groundwater ~~system~~ waterworks owner that receives notice from a consecutive waterworks it serves that a sample collected in accordance with 12VAC5-590-370 A is total coliform-positive shall, within 24 hours of being notified, collect a sample from its groundwater source(s) as described in subdivision B 1 of this section.

(b) If the sample collected under this subdivision B 1 ~~of this section~~ is E. coli positive, the wholesale groundwater system owner shall within 24 hours notify all consecutive waterworks served by that groundwater source of the E. coli source water positive sample as described in 12VAC5-590-540 and shall meet the requirements of subdivision B 1 c of this section.

e. Exception to the triggered source water monitoring requirements. A groundwater system owner is not required to comply with the source water monitoring requirements of this subdivision B 1 ~~of this section~~ if the commissioner determines, and documents in writing, that ~~the~~:

(1) The total coliform-positive sample collected in accordance with 12VAC5-590-370 A is invalidated under 12VAC5-590-380 E.

(2) The total coliform-positive sample collected in accordance with 12VAC5-590-370 A is caused by a distribution system deficiency (sanitary defect).

(3) The total coliform-positive sample collected in accordance with 12VAC5-590-370 A was caused by distribution system conditions that will cause total coliform-positive samples.

2. Invalidation of an E. ~~coli-positive~~ coli-positive groundwater source sample.

a. A groundwater ~~system~~ waterworks owner may obtain the commissioner's invalidation of an E. ~~coli-positive~~ coli-positive groundwater source sample collected under subdivision B 1 of this section only under the conditions specified in subdivisions B 2 a (1) and (2) of this section:

(1) The groundwater ~~system~~ waterworks owner provides the commissioner with written notice from the laboratory that improper sample analysis occurred; or

(2) The commissioner determines and documents in writing that there is substantial evidence that the E. ~~coli positive~~ coli-positive groundwater source sample is not related to source water quality.

b. If the commissioner invalidates an E. coli positive groundwater source sample, the groundwater system owner shall collect another source water sample under subdivision B 1 of this section within 24 hours of being notified by the commissioner of the invalidation decision and have it analyzed for E. coli.

3. Sampling location. All groundwater source samples required under subdivision B 1 of this section shall be collected at a location prior to any treatment of the groundwater source unless otherwise approved by the commissioner.

4. Public notification. The owner of a groundwater ~~system~~ waterworks with a source sample collected under this subsection ~~B of this section~~ that is E. coli positive and that is not invalidated under subdivision B 2 of this section, including consecutive waterworks served by the groundwater source, shall conduct public notification as required in 12VAC5-590-540 A 1.

5. Monitoring violations. Failure to meet the monitoring requirements of subdivision B 1 of this section is a violation and requires the groundwater ~~system~~ waterworks owner to provide public notification as required in 12VAC5-590-540 A 3.

12VAC5-590-380. Bacteriological quality.

A. Analytical methodology.

1. The standard sample volume for the coliform test shall consist of 100 milliliters, regardless of the analytical method used.

2. Owners need only to determine the presence or absence of total coliforms and E. coli; a determination of total coliform density is not required.

3. The time from sample collection to initiation of test medium incubation shall not exceed 30 hours.

4. Owners are encouraged but not required to hold samples below 10°C during transit.

5. If water having residual chlorine (measured as free, combined, or total chlorine) is to be analyzed, sufficient sodium thiosulfate ($Na_2S_2O_3$) shall be added to the sample bottle before sterilization to neutralize any residual chlorine in the water sample.

~~B. Waterworks need only to determine the presence or absence of total coliforms; a determination of total coliform density is not required.~~

~~C. Primary Maximum Contaminant Levels (PMCLs) for microbiological contaminants.~~

~~1. The PMCL is based on the presence or absence of total coliforms in a sample, rather than coliform density.~~

~~a. A waterworks which is required to collect at least 40 samples per month is in compliance if no more than 5.0% of the samples collected during a month are total coliform positive.~~

~~b. A waterworks which is required to collect fewer than 40 samples per month is in compliance if no more than one sample collected during the month is total coliform positive.~~

~~2. Any fecal coliform positive repeat sample or E. coli positive repeat sample, or any total coliform positive repeat sample following a fecal coliform positive or E. coli positive routine sample constitutes a violation of the PMCL for total coliforms. For purposes of the public notification requirements in 12VAC5-590-540, this is a violation that may pose an acute risk to health and is a Tier 1 condition.~~

B. PMCLs for microbial contaminants.

1. A waterworks is in compliance with the PMCL for E. coli unless any of the conditions identified in this subdivision occur. A violation may pose an acute risk to public health and is a Tier 1 condition requiring public notification as described in 12VAC5-590-540 when:

a. A repeat sample following a total coliform-positive routine sample is E. coli positive;

b. A repeat sample following an E. coli-positive routine sample is total coliform positive;

c. The owner fails to take all required repeat samples following an E. coli-positive routine sample; or

d. The owner fails to test for E. coli when any repeat sample tests positive for total coliform.

~~3.~~ 2. Compliance ~~must~~ shall be determined with the PMCL for ~~total coliforms~~ E. coli for each ~~month in~~ monitoring period for which monitoring for total coliforms is required.

~~4. The board hereby identifies the following as the~~ C. The best available technology, treatment techniques, or other means available for achieving compliance with the ~~maximum contaminant level for total coliforms.~~ PMCL for E. coli shall be:

~~a.~~ 1. Protection of wells from contamination by coliforms by appropriate placement and construction;

~~b.~~ 2. Maintenance of a disinfectant residual throughout the distribution system;

~~c.~~ 3. Proper maintenance of the distribution system including appropriate pipe replacement and repair procedures, main flushing programs, proper operation and maintenance of storage tanks and reservoirs, continual maintenance of positive water pressure in all parts of the distribution system, and an approved cross connection control program;

~~d.~~ 4. Filtration and disinfection of surface water or surface influenced groundwater ~~or disinfection of ground water~~; and

5. Disinfection of groundwater using strong oxidants such as chlorine, chlorine dioxide, or ozone.

D. A total ~~coliform-positive~~ coliform-positive result is indicative of a breakdown in the protective barriers and shall be cause for repeat monitoring and special follow-up action to locate and eliminate the cause of contamination.

~~1. Repeat monitoring. If a routine sample is total coliform positive, the waterworks owner shall collect a set of repeat samples within 24 hours of being notified of the positive result. A waterworks owner who collects more than one routine sample a month shall collect no fewer than three repeat samples for each total coliform positive sample found. A waterworks owner who collects one routine sample a month or fewer shall collect no fewer than four repeat samples for each total coliform positive sample found. For groundwater systems, the requirements of 12VAC5-590-379 shall also apply. Owners of groundwater systems who are required to collect four repeat samples may use one of the repeat samples to satisfy the requirements of 12VAC5-590-379. These repeat samples must be analyzed for E. coli using one of the analytical methods in 40 CFR 141.402 (c).~~

~~2. The waterworks owner shall collect at least one repeat sample from the sampling tap where the original total coliform positive sample was taken, and at least one repeat sample at a tap within five service connections upstream and at least one repeat sample at a tap within five service connections downstream of the original sampling site. If a total coliform positive sample is at the end of the distribution system, or one away from the end of the distribution system, the commissioner may waive the requirement to collect at least one repeat sample upstream or downstream of the original sampling site.~~

~~3. The waterworks owner shall collect all repeat samples on the same day, except the commissioner may allow a waterworks with a single service connection to collect the required set of repeat samples over a four-day period or to collect a larger volume repeat sample(s) in one or more sample containers of any size as long as the total volume collected is at least 400 ml (300 ml for systems which collect more than one routine sample per month).~~

~~4. If one or more repeat samples in the set is total coliform positive, the waterworks owner shall collect an additional set of repeat samples in the manner specified in subdivisions 1 through 3 of this subsection. The additional samples shall be collected within 24 hours of being notified of the positive result. The waterworks owner shall repeat this process until either (i) total coliforms are not detected in one complete set of repeat samples or (ii) the PMCL for total coliforms has been exceeded and the commissioner so notified.~~

~~5. Waterworks owners required to collect fewer than five routine samples per month and having one or more total coliform positive samples shall collect at least five routine samples during the next month the waterworks provides water to the public, except that the commissioner may waive this requirement if the conditions of subdivision 5 a or 5 b of this subsection are met. The commissioner shall not waive the requirement for a system to collect repeat samples in subdivisions 1 through 4 of this subsection. For groundwater systems, if any of the routine samples collected in accordance with subdivision D 5 of this section are total coliform positive, then the requirements of 12VAC5-590-379 shall apply.~~

~~a. The commissioner may waive the requirement to collect five routine samples the next month the waterworks provides water to the public if the commissioner (or an agent previously approved by the commissioner), performs a site visit before the end of the next month the waterworks provides water to the public. Although a sanitary survey need not be performed, the site visit shall be sufficiently detailed to allow the commissioner to determine whether additional monitoring or any corrective action is needed.~~

~~b. The commissioner may waive the requirement to collect five routine samples the next month the waterworks provides water to the public if the commissioner has determined why the sample was total coliform positive and establishes that the waterworks owner has corrected the problem or will correct the problem before the end of the next month the waterworks serves water to the public. In this case, the commissioner shall document this decision to waive the following month's additional monitoring requirement in writing and make this document available to the EPA and public. The written documentation shall describe the specific cause of the total coliform positive sample and what action the waterworks owner has taken or will take to correct this problem. The commissioner cannot waive the requirement to collect five routine samples the next month the waterworks provides water to the public solely on the grounds that all repeat samples are total coliform negative. Under this subdivision, a waterworks owner shall still take at least one routine sample before the end of the next month it serves water to the public and use the results to determine compliance with the MCL for total coliforms.~~

1. For each routine sample found to be total coliform positive, the waterworks owner shall collect a set of three repeat samples within 24 hours of being notified of the positive result. The commissioner may extend the 24-hour limit on a case-by-case basis. For groundwater waterworks, the requirements of 12VAC5-590-379 shall also apply, and all repeat samples must be analyzed for E. coli using one of the analytical methods in 40 CFR 141.402(c).

a. The owner shall collect at least one repeat sample from the sampling tap where the original total coliform-positive sample was taken, and at least one repeat sample

at a tap within five service connections upstream and at least one repeat sample at a tap within five service connections downstream of the original sampling site. If a total coliform-positive sample is at the end of the distribution system or one service connection away from the end of the distribution system, the owner must still take all required repeat samples.

b. The owner shall collect an additional set of repeat samples if one or more repeat samples in the current set of repeat samples is total coliform positive. The owner shall collect the additional set of repeat samples within 24 hours of being notified of the positive results, unless the commissioner extends the limit as provided in this section. The owner shall continue to collect additional sets of repeat samples until either total coliforms are not detected in one complete set of repeat samples or the owner determines that a coliform treatment technique trigger specified in 12VAC5-590-392 B has been exceeded as a result of a repeat sample being total coliform positive and notifies the appropriate ODW field office. If a trigger identified in 12VAC5-590-392 B is exceeded as a result of a routine sample being total coliform positive, an owner is required to conduct only one round of repeat monitoring for each total coliform-positive routine sample.

c. If the owner collects a routine sample before learning the results of the previous routine sample, and the sample is taken within five service connections of the initial routine sample, then the owner may count the subsequent sample as a repeat sample when the initial sample results are found to be total coliform positive.

d. If one or more repeat samples taken at the monitoring location required for triggered source water monitoring are E. coli positive, the waterworks has exceeded the E. coli PMCL and must comply with the groundwater system treatment technique requirements specified in 12VAC5-590-421.

e. If all repeat samples taken at the monitoring location required for triggered source water monitoring are E. coli negative, and a repeat sample taken at a monitoring location other than the one required for triggered source water monitoring is E. coli positive, then the waterworks has exceeded the E. coli PMCL. However, the owner is not required to collect five additional source water samples from the same source within 24 hours of learning the E. coli-positive result.

f. The waterworks owner shall collect all repeat samples on the same day, except the commissioner may allow a waterworks with a single service connection to collect the required set of repeat samples over a three-day period or to collect a larger volume repeat sample in one or more sample containers of any size as long as the total volume collected is at least 300 ml.

g. If a repeat sample taken at the monitoring location required for triggered source water monitoring is E. coli positive, the waterworks has exceeded the E. coli PMCL and must collect five additional source water samples from the same source within 24 hours of learning the E. coli-positive result.

~~6.~~ 2. Results of all routine and repeat samples not invalidated by the commissioner shall be ~~included in determining~~ used to determine compliance with the ~~MCL for total coliforms~~ PMCL for E. coli and whether a treatment technique trigger specified in 12VAC5-590-392 B has been exceeded.

~~7.~~ 3. Special purpose samples, such as those taken to determine whether disinfection practices are sufficient following pipe placement, replacement, or repair, and samples taken before start-up of a seasonal waterworks, shall not be used to determine compliance. Repeat samples are not considered special purpose samples.

E. A total ~~coliform-positive~~ coliform-positive sample invalidated under this paragraph does not count towards meeting the minimum monitoring requirements of this section. To invalidate a total coliform-positive sample under this subsection, the written decision and rationale shall be reviewed, approved, and signed by the commissioner. The commissioner shall make this document available to EPA and the public. The written documentation shall state the specific cause of the total coliform-positive sample and what action the owner has taken, or will take, to correct this problem. The commissioner shall not invalidate a total coliform-positive sample solely on the grounds that all repeat samples are total coliform negative.

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

a. The laboratory establishes that improper sample analysis caused the total ~~coliform-positive~~ coliform-positive result;

b. The commissioner, on the basis of the results of repeat samples collected as required by ~~subdivisions~~ subdivision D 1 ~~through 4~~ of this section determines that the total ~~coliform-positive~~ coliform-positive sample resulted from a domestic or other nondistribution system plumbing problem. The commissioner cannot invalidate a sample on the basis of repeat sample results unless all repeat sample(s) collected at the same tap as the original total coliform-positive sample are also total ~~coliform-positive~~ coliform positive, and all repeat samples collected ~~within five service connections of~~ at a location other than the original tap are total ~~coliform-negative~~ coliform negative (e.g., the commissioner cannot invalidate a total coliform-positive sample on the basis of repeat samples if all the repeat samples are total ~~coliform-negative~~ coliform negative, or if the waterworks has only one service connection); ~~and~~ or

c. The commissioner has substantial grounds to believe that a total ~~coliform-positive~~ coliform-positive result is due to a circumstance or condition ~~which~~ that does not reflect water quality in the distribution system. In this case, the waterworks owner shall still collect all repeat samples required under ~~subdivisions~~ subdivision D 1 ~~through 4~~ of this section, and use them to determine ~~compliance with the MCL for total coliforms~~ whether a coliform treatment technique trigger in 12VAC5-590-392 B has been exceeded. ~~To invalidate a total coliform positive sample under this subdivision, the decision with the rationale for the decision shall be documented in writing, and approved and signed by the commissioner. The commissioner shall make this document available to EPA and the public. The written documentation shall state the specific cause of the total coliform positive sample, and what action the waterworks owner has taken, or will take, to correct this problem. The commissioner shall not invalidate a total coliform positive sample solely on the grounds that all repeat samples are total coliform negative.~~

2. A laboratory must invalidate a sample because of sampling interference (i.e., turbid culture in absence of (i) gas production, or (ii) acid reaction; ~~or~~ exhibition of confluent growth; or production of colonies too numerous to count). The waterworks owners shall collect a replacement sample from the same location within 24 hours, and have it analyzed for the presence of total coliforms. The waterworks owner must continue to resample within 24 hours and have the samples analyzed until they obtain a valid result. The commissioner may waive the 24-hour time limit on a case-by-case basis.

F. ~~Fecal coliforms/Escherichia~~ Escherichia coli (E. coli) ~~testing~~.

1. If any routine or repeat sample or replacement sample is total coliform positive, the waterworks owner shall analyze that total ~~coliform positive~~ coliform-positive culture medium to determine if ~~fecal coliforms are~~ E. coli are present~~, except that the waterworks owner may test for E. coli in lieu of fecal coliforms~~. If ~~fecal coliforms or~~ E. coli are present, the waterworks owner ~~must~~ shall notify the appropriate ODW field office by the end of the day when the waterworks is notified of the test result, unless the ODW's field office is closed, in which case the ~~commissioner~~ appropriate ODW field office must be notified before the end of the next business day.

2. The commissioner has the discretion to allow a waterworks, on a case-by-case basis, to forgo ~~fecal coliform or~~ E. coli testing on a total coliform-positive sample if ~~that waterworks~~ the owner assumes that the total coliform-positive sample is ~~fecal coliform positive or~~ E. ~~coli positive~~ coli positive. Accordingly, the ~~waterworks~~ owner must notify the ~~commissioner~~ appropriate ODW field office as specified in subdivision 1 of this subsection and the provisions of subdivision ~~C 2~~ B 1 of this section apply.

~~G. Violation determination flowchart -- See Appendix K.~~

~~H.~~ G. Groundwater sources.

1. Groundwater sources shall be disinfected in accordance with 12VAC5-590-1000 when the total coliform geometric mean of 20 or more raw water samples measured by a method yielding a multiple-portion decimal-dilution (MPN) result is greater than three. The value 1.0 shall be used to represent a negative coliform result in the calculation of the geometric mean.

2. Groundwater sources containing a total coliform geometric mean of 100 or more organisms per 100 milliliters or with more than 10% of these samples exceeding 100 organisms per 100 milliliters constitutes unacceptable contamination for disinfection treatment only.

3. Groundwater sources shall be disinfected in accordance the requirements of 12VAC5-590-1000 when the source water quality contributes to the waterworks' failure to meet the bacteriological PMCL specified in subsection ~~C~~ B of this section.

4. Groundwater sources shall be disinfected in accordance with 12VAC5-590-421 A 1 d when the results of source development samples specified in 12VAC5-590-840 B 11 indicate the presence of E. coli in two or more samples.

5. Groundwater sources shall be disinfected in accordance with 12VAC5-590-421 A 1 d when the results of raw water monitoring conducted in accordance with 12VAC5-590-425 indicate the presence of E. coli in two or more samples during any running six-month period.

~~I.~~ H. Groundwater systems conducting source water monitoring as described in 12VAC5-590-379 shall determine the presence or absence of E. coli. All samples shall be analyzed in accordance with 12VAC5-590-440 by the ~~DCLS~~ Division of Consolidated Laboratory Services (DCLS) or by a laboratory certified by DCLS for drinking water samples.

12VAC5-590-392. Coliform treatment technique triggers and assessment requirements.

A. Assessments shall be conducted in accordance with subsections C, D, and E of this section after exceeding treatment technique triggers.

B. Treatment technique triggers.

1. Level 1 treatment technique triggers:

a. For owners required to collect 40 or more samples per month, the number of total coliform-positive samples exceeds 5.0% of the number of samples collected for the month.

b. For owners required to collect fewer than 40 samples per month, when there are two or more total coliform-positive samples in the same month.

c. The owner fails to collect every required repeat sample after any single total coliform-positive sample.

2. Level 2 treatment technique triggers:

a. An E. coli PMCL violation, as specified in 12VAC5-590-380 B 2.

b. A second Level 1 trigger occurs within a rolling 12-month period, unless the commissioner has determined a likely reason for the first Level 1 treatment technique trigger and that the owner has corrected the problem.

C. Assessment requirements.

1. Level 1 and 2 assessments shall be conducted in order to identify the possible presence of sanitary defects and defects in the distribution system coliform monitoring practices. The owner shall be responsible for conducting Level 1 assessments. Level 2 assessments shall be conducted by the commissioner.

2. When conducting Level 1 and Level 2 assessments, the assessor shall include:

a. A review and identification of inadequacies in sample sites, sampling protocol, and sample processing;

b. A review of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired;

c. Evaluation of changes in distribution system maintenance and operation that could affect distributed water quality, including water storage;

d. Evaluation of source and treatment considerations that impact distributed water quality; and

e. Evaluation of existing water quality monitoring data.

3. Level 1 assessment.

a. The owner shall complete the assessment and document the assessment on the Waterworks Level 1 Assessment form. The owner shall submit the assessment form, as soon as practical, but within 30 days after the owner learns that a trigger in subdivision B 1 of this section has been exceeded.

b. If the commissioner reviews the completed Level 1 assessment and determines that the assessment is not sufficient, including any proposed timetable for any corrective actions, the commissioner shall consult with the owner. If the commissioner requires revisions after the consultation, the owner shall submit a revised assessment form to the appropriate ODW field office on an agreed upon schedule not to exceed 30 days from the date of consultation.

c. Upon completion and submission of the assessment form by the owner, the commissioner shall determine if the owner has identified a likely cause for the Level 1 trigger and, if so, confirm that the owner has corrected the problem or has included a schedule acceptable to the commissioner for correcting the problem.

4. Level 2 assessment.

a. ODW will complete the assessment and document the assessment on the Waterworks Level 2 Assessment form. ODW staff will consult with the owner during the assessment and complete the assessment within 30 days upon learning a waterworks has exceeded any trigger in subdivision B 2 of this section.

b. The commissioner will send to the owner the completed assessment form, which will describe any detected sanitary defects, corrective actions completed or needed and, if needed, a timetable to complete corrective actions. The owner will return the form within seven days with signature that indicates concurrence with the listed actions needed and timetable to complete the corrective actions. If the owner does not concur with either an action or timetable to complete a corrective action, the owner shall notify the commissioner, complete consultation with the commissioner, and develop a revised corrective action schedule. The owner shall submit the revised schedule to the commissioner for review and approval within 30 days of the date of the consultation.

D. Corrective actions.

1. The owner shall correct sanitary defects found through either Level 1 or 2 assessment conducted under subsection C of this section.

2. The owner shall complete the corrective action or corrective actions in compliance with the timetable approved by the commissioner in consultation with the owner. The owner shall notify the appropriate ODW field office no later than seven days after each scheduled corrective action is completed.

E. Consultation.

1. At any time during the assessment or corrective action phase, either the owner or the commissioner may request a consultation with the other party to determine the appropriate actions to be taken.

2. The owner may consult with the commissioner on all relevant information that may impact the ability to comply with subsection D of this section.

F. Violations. Failure to conduct the required assessment or corrective actions in accordance with subsections C and D of this section, after exceeding a treatment technique trigger specified in subsection B of this section, is a treatment technique violation. The owner shall provide public notification as required under Tier 2 conditions specified in 12VAC5-590-540.

12VAC5-590-440. Analytical methods.

All drinking water analyses for compliance purposes shall have been performed by analytical methods that are consistent with current U.S. Environmental Protection Agency regulations found at 40 CFR Part 141 and 40 CFR Part 143. Laboratories seeking certification to perform

drinking water analyses shall comply with all applicable regulations promulgated by the Department of General Services, Division of Consolidated Laboratory Services.

Testing for alkalinity, calcium, conductivity, disinfectant residual, orthophosphate, pH, silica, temperature, and turbidity for compliance purposes may be performed by any person or party acceptable to the commissioner.

Table 2.2 — Inorganic Chemicals.

Substance	Primary Maximum Contaminant Level (mg/L)
Antimony	0.006
Arsenic (As)	0.010***
Asbestos	7 Million Fibers/Liter (longer than 10 um)
Barium (Ba)	2
Beryllium	0.004
Cadmium (Cd)	0.005
Chromium (Cr)	0.1
Cyanide (as free Cyanide)	0.2
Fluoride (F)	4.0 #
Mercury (Hg)	0.002
Nickel	No Limits Designated
Nitrate (as N)	10**
Nitrite (as N)	1
Total Nitrate and Nitrite (as N)	10
Selenium (Se)	0.05
Thallium	0.002
Substance	Secondary Maximum Contaminant Level (mg/L)
Chloride (Cl)	250.0
Copper (Cu)	1.0
Corrosivity	Noncorrosive, See Appendix B
Fluoride	2.0
Foaming Agents	0.5*
Iron (Fe)	0.3
Manganese (Mn)	0.05
Sodium (Na)	No Limits Designated
Sulfate (SO_4)	250.0
Zinc (Zn)	5.0
Substance	Action Level (mg/L)
Lead (Pb)	0.015
Copper (Cu)	1.3

Note. For artificially fluoridated waterworks the minimum concentration of fluoride should be 0.8 mg/L and the maximum should be 1.0 mg/L. The optimum control limit is 0.9 mg/L. (See Appendix B)

*Note. Concentration reported in terms of Methylene Blue Active Substances.

**Note. See Appendix B for Exception Regarding Noncommunity Waterworks.

***Note. The PMCL for arsenic is 0.010 mg/L for community and nontransient noncommunity waterworks effective January 23, 2006. Arsenic sampling results shall be reported to the nearest 0.001 mg/L.

Table 2.3 — Organic Chemicals.

Substance	Primary Maximum Contaminant Levels (mg/L)
VOC	
1. Vinyl Chloride	0.002
2. Benzene	0.005
3. Carbon Tetrachloride	0.005
4. 1,2-Dichloroethane	0.005
5. Trichloroethylene (TCE)	0.005
6. 1,1-Dichloroethylene	0.007
7. 1,1,1-Trichloroethane	0.2
8. para-Dichlorobenzene	0.075
9. cis-1,2-Dichloroethylene	0.07
10. 1,2-Dichloropropane	0.005
11. Ethylbenzene	0.7
12. Monochlorobenzene	0.1
13. o-Dichlorobenznen	0.6
14. Styrene	0.1
15. Tetrachloroethylene	0.005
16. Toluene	1

17. trans-1,2-Dichloroethylene	0.1
18. Xylene (total)	10
19. Dichloromethane	0.005
20. 1,2,4-Trichlorobenzene	0.07
21. 1,1,2-Trichloroethane	0.05
SOC	
1. Alachlor	0.002
2. Atrazine	0.003
3. Carbofuran	0.04
4. Chlordane	0.002
5. Heptachlor	0.0004
6. Heptachlor epoxide	0.0002
7. Polychlorinated biphenyls (PCBs)	0.0005
8. Dibromochloropropane (DBCP)	0.0002
9. Ethylene dibromide (EDB)	0.00005
10. Lindane	0.0002
11. Methoxychlor	0.04
12. Toxaphene	0.003
13.4-Dichlorophenoxyacetic Acid (2,4-D)	0.07
14. 2,4,5-Trichlorophenoxypropionic Acid (2,4,5-TP or Silvex)	0.05
15. Reserved	
16. Reserved	
17. Reserved	
18. Pentachlorophenol	0.001
19. Benzo(a)pyrene	0.0002
20. Dalapon	0.2
21. Di(2-ethylhexy)adipate	0.4
22. Di(2-ethylhexy)phthalate	0.006
23. Dinoseb	0.007
24. Diquat	0.02
25. Endothall	0.1
26. Endrin	0.002
27. Glyphosate	0.7
28. Hexachlorobenzene	0.001
29. Hexachlorocyclopentadiene	0.05
30. Oxamyl (Vydate)	0.2
31. Picloram	0.5
32. Simazine	0.004
33. 2,3,7,8-TCDD (Dioxin)	3×10^{-8}

Table 2.4 — Physical Quality.

Parameter	Maximum Contaminant Level	Concentration
Color	Secondary	15 Color Units
Odor	Secondary	3 Threshold odor numbers
pH	Secondary	6.5-8.5
Total Dissolved	Secondary	500 mg/L Solids (TDS)
Turbidity	Primary	*1 Turbidity Unit
* See Appendix B for operational requirements.		

Table 2.5 — Radiological Quality.

A. Maximum Contaminant Level Goals for Radionuclides	
Substance	MCLG
1. Combined radium-226 and radium-228	Zero
2. Gross alpha particle activity (excluding Radon and uranium)	Zero
3. Beta particle and photon radioactivity	Zero
4. Uranium	Zero
B. Primary Maximum Contaminant Levels for Radionuclides	
Substance	Primary Maximum Contaminant Level
1. Combined radium-226 and radium-228	5 pCi/L
2. Gross Alpha Activity (excluding Radon and Uranium)	15 pCi/L

3. Uranium	30 µg/L
Primary Maximum Contaminant Levels for Beta Particle and Photon Radioactivity from Man-Made Radionuclides	
1. The average annual concentration of Beta particle and Photon radioactivity from man-made radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than 4 millirem/year.	
2. Except for the radionuclides listed in Schedule I, the concentration of man-made radionuclides causing 4 MREM total body or organ dose equivalents shall be calculated on the basis of a 2 liter per day drinking water intake using the 168-hour data listed in "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and Water for Occupational Exposure," MBS Handbook 69 as amended August 1963, U.S. Department of Commerce. If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ exceed 4 millirem/year.	
Schedule 1	
Average annual concentrations assumed to produce a total body organ dose of 4 mrem/year.	

Radionuclide	Critical Organ	pCi/liter
Tritium	Total Body	20,000
Strontium-90	Bone Marrow	8
* See Appendix B		

Table 2.6 — Unregulated Contaminant Organics to be Monitored.

Group A	
1. Chloroform	12. Chloromethane
2. Bromodichloromethane	13. Bromoethane
3. Chlorodibromomethane	14. 1,2,3-Trichloropropane
4. Bromoform	15. 1,1,1,2-Tetrachloroethane
5. Chlorobenzene	16. Chloroethane
6. m-Dichlorobenzene	17. 2,2-Dichloropropane
7. Dibromomethane	18. o-Chlorotoluene
8. 1,1-Dichloropropene	19. p-Chlorotoluene
9. 1,1-Dichloroethane	20. Bromobenzene
10. 1,1,2,2-Tetrachloroethane	21. 1,3-Dichloropropene
11. 1,3-Dichloropropane	
Group B	
1. Aldrin	8. Metoachlor
2. Butachlor	9. Metribuzin
3. Carbaryl	10. Propachlor
4. Dicamba	11. Aldicarb
5. Dieldrin	12. Aldicarb sulfone
6. Methomyl	13. Aldicarb sulfoxide
7. 3-Hyposycarbofuran	

Table 2.7 — Reserved

Table 2.8 — Organic Chemical Monitoring Implementation Schedule.

Number of Persons Served	Monitoring to Begin During the Quarter that Begins
Over 10,000	January 1,1988
3,300 to 10,000	January 1,1989
less than 3,300	January 1,1991

Table 2.9 — PMCL Effective Dates.

Table 2.3, Organics Chemicals, VOC 1 through 8 (Phase I)	January 9, 1989
Total Trihalomethanes and Fluoride	July 1, 1991
Table 2.3, Organics Chemicals, VOC 9 through 18 and SOC 1 through 14 (Phase II VOCs and SOCs)	July 30, 1992
Asbestos, Cadmium, Chromium, Mercury, Nitrate, Nitrite, Total Nitrate+Nitrite, Selenium (Phase II IOCs)	July 30, 1992
Table 2.3, Organics Chemicals, SOC 15 through 18 and Table 2.2, Inorganic Chemicals, Barium (Phase II SOCs and IOCs)	January 1, 1993

Table 2.3, Organics Chemicals, VOC 19 through 21, SOC 19 through 33 and Table 2.2, Inorganic Chemicals; antimony, beryllium, cyanide (as free cyanide), nickel, and thallium	January 17, 1994
Uranium	December 8, 2003
E. coli	April 1, 2016

Table 2.10 — Maximum Contaminant Level Goals for Microbiological Contaminants.

Contaminant	MCLG
Giardia lamblia	Zero
Viruses	Zero
Legionella	Zero
~~Total coliforms (including fecal coliforms and Escherichia coli)~~	~~Zero~~
Cryptosporidium	Zero
Escherichia coli (E. coli)	Zero

Table 2.11 — Maximum Contaminant Level Goals for Disinfection Byproducts.

Disinfection byproduct	MCLG (mg/L)
Bromate	Zero
Bromodichloromethane	Zero
Bromoform	Zero
Chlorite	0.8
Chloroform	0.07
Dibromochloromethane	0.06
Dichloroacetic acid	Zero
Monochloroacetic acid	0.07
Trichloroacetic acid	0.02

Table 2.12 — Maximum Residual Disinfectant Level Goals (MRDLG) and Maximum Residual Disinfectant Levels (MRDL) for Disinfectants

Disinfectant residual	MRDLG (mg/L)	MRDL (mg/L)
Chlorine	4 (as Cl_2)	4.0 (as Cl_2)
Chloramines	4 (as Cl_2)	4.0 (as Cl_2)
Chlorine dioxide	0.8 (as ClO_2)	0.8 (as ClO_2)

Notwithstanding the MRDLs in Table 2.12, owners may increase residual disinfectant levels in the distribution system of chlorine or chloramines (but not chlorine dioxide) to a level and for a time necessary to protect public health, to address specific microbiological contamination problems caused by circumstances such as, but not limited to, distribution line breaks, storm run-off events, source water contamination events, or cross-connection events.

Table 2.13 — Primary Maximum Contaminant Levels (PMCL) for Disinfection Byproducts

Disinfection byproduct	PMCL (mg/L)
Total trihalomethanes (TTHM)	0.080
Haloacetic Acids (five) (HAA5)	0.060
Bromate	0.010
Chlorite	1.0

12VAC5-590-530. Reporting.

A. The results of any required monitoring activity shall be reported by the owner (or their authorized agent) to the ODW no later than (i) the 10th day of the month following the month during which the test results were received, or (ii) the 10th day following the end of the monitoring period, whichever is shorter, unless stipulated otherwise by the commissioner. The results of any required monitoring activity shall be reported by the owner in a format prescribed by the commissioner.

B. It shall be the duty and responsibility of an owner to report to the ODW in the most expeditious manner (usually by telephone) under the following circumstances. If it is done by telephone a confirming report shall be mailed as soon as practical.

1. Bacteriological examination reporting

a. When a bacteriological examination shows ~~a repeat sample is required~~ that samples are required (see 12VAC5-590-380 D), ~~a report shall be made within 48 hours. An owner shall report a total coliform PMCL violation to the district engineer no later than the end of the next business day~~ the owner shall collect the repeat samples within 24 hours of being notified of the positive result and shall report the repeat sample results to the appropriate ODW field office.

b. Microbial contamination, as evidenced by one or more routine distribution system water samples indicating the presence of E. coli or waterborne pathogens, shall be reported by the owner to the appropriate ODW field office by the end of the day when the owner was notified

of the test result, unless ODW's field office is closed, in which case ODW shall be notified before the end of the next business day.

c. An E. coli PMCL violation shall be reported by the owner to the appropriate ODW field office by the end of the day when the owner was notified of the test result, unless the ODW field office is closed, in which case ODW shall be notified before the end of the next business day.

d. Any owner who has failed to comply with the monitoring requirements of 12VAC5-590-370 shall report the monitoring violation to the appropriate ODW field office in writing within 10 days after the owner discovers the violation and shall notify the public in accordance with 12VAC5-590-540.

2. When the daily average of turbidity testing exceeds ~~5~~ 5.0 NTU a report shall be made within 48 hours.

3. When a PMCL of an inorganic or organic chemical is exceeded for a single sample the owner shall report same within seven days. If any one sample result would cause the compliance average to be exceeded the owner shall report same in 48 hours.

4. When the average value of samples collected pursuant to 12VAC5-590-410 exceeds the PMCL of any organic or inorganic chemical the owner shall report same within 48 hours.

5. When the maximum contaminant level for radionuclides has been exceeded as determined by Table 2.5 the results shall be reported within 48 hours.

6. The owner shall report to the district engineer within 48 hours the failure to comply with the monitoring and sanitary survey requirements of this chapter.

7. The owner shall report to the district engineer within 48 hours the failure to comply with the requirements of any schedule prescribed pursuant to a variance or exemption.

8. The owner shall report a Tier 1 violation or situation, as described in 12VAC5-590-540 A 1, to the district engineer as soon as practical, but no later than 24 hours after the owner learns of the Tier 1 violation or situation. At the same time the report is made, the owner shall consult with the field office to determine the need for any additional actions to address the violation or situation.

9. The owner shall report a violation of treatment technique requirement resulting from a single exceedance of the maximum allowable turbidity limit, as described in 12VAC5-590-420 B 2 a (2), B 2 a (3) ~~(b)~~, B 2 b (2), B 2 c (2), and B 2 d, to the district engineer as soon as practical, but no later than 24 hours after the owner learns of the violation. At the same time the report is made, the owner shall consult with the field office to determine the need for any additional actions to address the violation or situation.

C. Reporting requirements for coliform treatment technique violations.

1. Any owner who has violated the treatment technique required in 12VAC5-590-392 B shall report the violation to the appropriate ODW field office no later than the end of the next business day after learning of the violation and shall notify the public in accordance with 12VAC5-590-540.

2. Any owner who is required to conduct an assessment under 12VAC5-590-392 C shall submit the assessment report within 30 days to the appropriate ODW field office.

3. The owner shall notify the appropriate ODW field office in writing after each scheduled corrective action is completed for corrections that were not completed by the time of submission of the assessment form under the requirements of 12VAC5-590-392 C.

D. The owner of a seasonal waterworks shall submit certification of completion of the approved start-up procedure to the commissioner prior to serving water.

E. Reporting requirements for filtration treatment and disinfection treatment.

1. The owner of a waterworks that provides filtration treatment shall report monthly to the commissioner the following specified information beginning June 29, 1993, or when filtration is installed, whichever is later.

a. Turbidity measurements as required by 12VAC5-590-370 B 7 a shall be reported within 10 days after the end of each month the waterworks serves water to the public. Information that shall be reported includes:

(1) The total number of filtered water turbidity measurements taken during the month.

(2) The number and percentage of filtered water turbidity measurements taken during the month which are less than or equal to the turbidity limits specified in 12VAC5-590-420 B 2 for the filtration technology being used.

(3) The date and value of any turbidity measurements taken during the month which exceed ~~5~~ 5.0 NTU.

b. The owner of a waterworks using surface water or groundwater under the direct influence of surface water that provides conventional filtration treatment or direct filtration shall report monthly to the commissioner the information specified in subdivisions ~~C~~ E 1 a (1) and (2) of this section. Also, the owner of a waterworks that provides filtration approved under 12VAC5-590-420 B 2 d shall report monthly to the commissioner the information specified in subdivision ~~C~~ E 1 a (1) of this section.

(1) Turbidity measurements as required by 12VAC5-590-420 B 2 a (3) shall be reported within 10 days after the end of each month the system serves water to the public. Information that shall be reported includes:

(a) The total number of filtered water turbidity measurements taken during the month.

(b) The number and percentage of filtered water turbidity measurements taken during the month that are less than or equal to the turbidity limits specified in 12VAC5-590-420 B 2 a (3) or 12VAC5-590-420 B 2 d.

(c) The date and value of any turbidity measurements taken during the month that exceed ~~1~~ 1.0 NTU for systems using conventional filtration treatment or direct filtration, or that exceed the maximum level set by the commissioner under 12VAC590-420 B 2 d.

(2) The owner shall maintain the results of individual filter monitoring taken under 12VAC5-590-370 B 7 b (1) for at least three years. The owner shall report that he has conducted individual filter turbidity monitoring under 12VAC5-590-370 B 7 b (1) within 10 days after the end of each month the waterworks serves water to the public. Owners shall report individual filter turbidity measurement results taken under 12VAC5-590-370 B 7 b (1) within 10 days after the end of each month the waterworks serves water to the public only if measurements demonstrate one or more of the conditions in subdivisions ~~C~~ E 1 b (2) (a) or (b) of this section. The owners of waterworks that use lime softening may apply to the commissioner for alternative exceedance levels for the levels specified in subdivisions ~~C~~ E 1 b (2) (a) or (b) of this section if they can demonstrate that higher turbidity levels in individual filters are due to lime carryover only and not due to degraded filter performance.

(a) For waterworks serving 10,000 or more people:

(i) For any individual filter that has a measured turbidity level of greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart, the owner shall report the filter number, the turbidity measurement, and the date, or dates, on which the exceedance occurred. In addition, the owner shall either produce a filter profile for the filter within seven days of the exceedance (if the owner is not able to identify an obvious reason for the abnormal filter performance) and report that the profile has been produced or report the obvious reason for the exceedance.

(ii) For any individual filter that has a measured turbidity level of greater than 0.5 NTU in two consecutive measurements taken 15 minutes apart at the end of the first four hours of continuous filter operation after the filter has been backwashed or otherwise taken offline, the owner shall report the filter number, the turbidity, and the date, or dates, on which the exceedance occurred. In addition, the owner shall either produce a filter profile for the filter within seven days of the exceedance (if the owner is not able to identify an obvious reason for the abnormal filter performance) and report that the profile has been produced or report the obvious reason for the exceedance.

(iii) For any individual filter that has a measured turbidity level of greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of three consecutive months, the owner shall report the filter number, the turbidity measurement, and the date, or dates, on which the exceedance occurred. In addition, the owner shall conduct a self-assessment of the filter within 14 days of the exceedance and report that the self-assessment was conducted. The self-assessment shall consist of at least the following components: assessment of filter performance; development of a filter profile; identification and prioritization of factors limiting filter performance; assessment of the applicability of corrections; and preparation of a filter self-assessment report.

(iv) For any individual filter that has a measured turbidity level of greater than 2.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of two consecutive months, the owner shall report the filter number, the turbidity measurement, and the date, or dates, on which the exceedance occurred. In addition, the owner shall arrange for the conduct of a comprehensive performance evaluation by the commissioner or a third party approved by the commissioner no later than 30 days following the exceedance and have the evaluation completed and submitted to the commissioner no later than 90 days following the exceedance.

(b) For waterworks serving less than 10,000 people:

(i) For any individual filter (or the turbidity of combined filter effluent for systems with two filters that monitor combined filter effluent in lieu of individual filters) that has a measured turbidity level of greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart, the owner shall report the filter number(s), the turbidity measurement(s), and the date, or dates, on which the exceedance occurred and the cause (if known) for the exceedance(s).

(ii) For any individual filter (or the turbidity of combined filter effluent for systems with two filters that monitor combined filter effluent in lieu of individual filters) that has a measured turbidity level of greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of three consecutive months, the owner shall conduct a self-assessment of the filter(s) within 14 days of the day the filter exceeded 1.0 NTU unless a comprehensive performance evaluation as specified in ~~paragraph~~ clause (iii) of this ~~section~~ subdivision was required. Owners of waterworks with two filters that monitor the combined filter effluent in lieu of individual filters shall conduct a self assessment on both filters. The self-assessment shall be reported to the commissioner and consist of at least the following components: date

self-assessment was triggered; date the self-assessment was completed; assessment of filter performance; development of a filter profile; identification and prioritization of factors limiting filter performance; assessment of the applicability of corrections; and preparation of a filter self-assessment report. The self assessment shall be submitted within 10 days after the end of the month or 14 days after the self assessment was triggered only if it was triggered during the last four days of the month.

(iii) For any individual filter (or the turbidity of combined filter effluent for systems with two filters that monitor combined filter effluent in lieu of individual filters) that has a measured turbidity level of greater than 2.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of two consecutive months, the owner shall arrange for a comprehensive performance evaluation by the commissioner or a third party approved by the commissioner no later than 60 days following the day the filter exceeded 2.0 NTU in two consecutive months. The owner shall report within 10 days after the end of the month that a comprehensive performance evaluation is required and the date that it was triggered. If a comprehensive performance evaluation has been completed by the commissioner or a third party approved by the commissioner within the 12 prior months or the owner and the commissioner are jointly participating in an ongoing Comprehensive Technical Assistance project at the waterworks, a new comprehensive performance evaluation is not required. If conducted, a comprehensive performance evaluation shall be completed and submitted to the commissioner no later than 120 days following the day the filter exceeded 2.0 NTU in two consecutive measurements for the second straight month.

c. Reporting source water monitoring results.

(1) Owners shall report results from the source water monitoring required in 12VAC5-590-420 B 3 a no later than 10 days after the end of the first month following the month when the sample is collected.

(2) Owners shall report the applicable information in subdivisions (a) and (b) as follows for the source water monitoring required in 12VAC5-590-420 B 3 a.

(a) Owners shall report the following data elements for each Cryptosporidium analysis:

Data element
PWS ID
Facility ID
Sample collection date
Sample type (field or matrix spike)
Sample volume filtered (L), to nearest ¼ L
Was 100% of filtered volume examined
Number of oocysts counted

(i) For matrix spike samples, the owner shall also report the sample volume spiked and estimated number of oocysts spiked. These data are not required for field samples.

(ii) For samples in which less than 10 L is filtered or less than 100% of the sample volume is examined, the owner shall also report the number of filters used and the packed pellet volume.

(iii) For samples in which less than 100% of sample volume is examined, the owner shall also report the volume of resuspended concentrate and volume of this resuspension processed through immunomagnetic separation.

(b) Owners shall report the following data elements for each E. coli analysis:

Data element
1. PWS ID
2. Facility ID
3. Sample collection date
4. Analytical method number
5. Method type
6. Source type (flowing stream, lake/reservoir, GUDI)
7. E. coli/100 mL
8. Turbidity[a]
[a]Owners of waterworks serving fewer than 10,000 people that are not required to monitor for turbidity under in 12VAC5-590-420 B 3 a are not required to report turbidity with their E. coli results.

2. Disinfection information specified below shall be reported to the district engineer within 10 days after the end of each month the waterworks serves water to the public. Information that shall be reported includes:

a. For each day, the lowest measurement of residual disinfectant concentration in mg/L in water entering the distribution system.

b. The date and duration of each period when the residual disinfectant concentration in water entering the distribution system fell below 0.2 mg/L and when the district engineer was notified of the occurrence.

c. The following information on the samples taken in the distribution system in conjunction with total coliform monitoring pursuant to 12VAC5-590-420 B.

(1) Number of instances where the residual disinfectant concentration is measured;

(2) Number of instances where the residual disinfectant concentration is not measured but HPC is measured;

(3) Number of instances where the residual disinfectant concentration is measured but not detected and no HPC is measured;

(4) Number of instances where no residual disinfectant concentration is detected and where HPC is greater than 500/mL;

(5) Number of instances where the residual disinfectant concentration is not measured and HPC is greater than 500/mL;

(6) For the current and previous month the system serves water to the public, the value of "V" in percent in the following formula:

$$V = \frac{c + d + e}{a + b} \text{ X } 100$$

a = the value in subdivision ~~C~~ E 2 c (1) of this section

b = the value in subdivision ~~C~~ E 2 c (2) of this section

c = the value in subdivision ~~C~~ E 2 c (3) of this section

d = the value in subdivision ~~C~~ E 2 c (4) of this section

e = the value in subdivision ~~C~~ E 2 c (5) of this section

(7) If the division determines, based on site specific considerations, that a waterworks owner has no means for having a sample transported and analyzed for HPC by a certified laboratory within the requisite time and temperature conditions and that the waterworks is providing adequate disinfection in the distribution system, the requirements of subdivision ~~C~~ E 2 c (1) through (6) of this section do not apply.

d. An owner need not report the data listed in subdivision ~~C~~ E 2 a of this section if all data listed in subdivisions ~~C~~ E 2 a through c of this section remain on file at the waterworks and the commissioner determines that the owner has submitted all of the information required by subdivisions ~~C~~ E 2 a through c of this section for the last 12 months.

3. If at any time the chlorine residual falls below 0.2 mg/L in the water entering the distribution system, the owner shall notify the district engineer as soon as possible, but no later than by the end of the next business day. The owner also shall notify the district engineer by the end of the next business day whether or not the residual was restored to at least 0.2 mg/L within four hours.

~~D.~~ F. Reporting requirements for lead and copper. All owners shall report all of the following information to the district engineer in accordance with this subsection.

1. Reporting requirements for tap water monitoring for lead and copper and for water quality parameter monitoring.

a. Except as provided in subdivision ~~D~~ F 1 a (7) of this section, an owner shall report the information specified below for all tap water samples specified in 12VAC5-590-375 B and for all water quality parameter samples specified in 12VAC5-590-375 C within the first 10 days following the end of each applicable monitoring period specified in 12VAC5-590-375 B and 12VAC5-590-375 C (i.e., every six months, annually, every three years, or every nine years). For monitoring periods with a duration less than six months, the end of the monitoring period is the last date samples can be collected during the period as specified in 12VAC5-590-375 B and ~~12VAC5-590-375~~ C.

(1) The results of all tap samples for lead and copper including location or a location site code and the criteria under 12VAC5-590-375 B 1 c through 12VAC5-590-375 B 1 f or 12VAC5-590-375 C under which the site was selected for the waterworks' sampling pool.

(2) Documentation for each tap water lead or copper sample for which the owner requests invalidation pursuant to 12VAC5-590-375 B 6.

(3) The 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period (calculated in accordance with 12VAC5-590-385 C) unless the district engineer calculates the 90th percentile lead and copper levels under subdivision ~~D~~ F 8 of this section.

(4) With the exception of initial tap sampling conducted pursuant to 12VAC5-590-375 B 4 a, the owner shall designate any site that was not sampled during previous monitoring periods, and include an explanation of why sampling sites have changed;

(5) The results of all tap samples for pH, and where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under 12VAC5-590-375 C 2 through 12VAC5-590-375 C 5.

(6) The results of all samples collected at the entry point(s) to the distribution system for applicable water quality parameters under 12VAC5-590-375 C 2 through 12VAC5-590-375 C 5.

(7) The owner shall report the results of all water quality parameter samples collected under 12VAC5-590-375 C 3 through 12VAC5-590-375 C 6 during each six month monitoring period specified in 12VAC5-590-375 C 4 within the first ten days following the end of the monitoring period unless the commissioner has specified a more frequent reporting requirement.

b. The owner of a nontransient noncommunity waterworks, or a community waterworks meeting the

criteria of 12VAC5-590-405 D 2 e, that does not have enough taps that can provide first-draw samples, must either:

(1) Provide written documentation to the commissioner identifying standing times and locations for enough non-first-draw samples to make up the sampling pool under 12VAC5-590-375 B 2 e by the start of the first applicable monitoring period under 12VAC5-590-375 B 4, unless the commissioner has waived prior approval of non-first-draw sample sites selected by the owner pursuant to 12VAC5-590-375 B 2 e; or

(2) If the commissioner has waived prior approval of non-first-draw sample sites selected by the owner, identify, in writing, each site that did not meet the six hour minimum standing time and the length of standing time for that particular substitute sample collected pursuant to 12VAC5-590-375 B 2 e and include this information with the lead and copper sample results required to be submitted pursuant to subdivision ~~D~~ F 1 a (1) of this section.

c. At a time specified by the commissioner, or if no specific time is designated by the commissioner, then as early as possible prior to the addition of a new source or any long-term change in water treatment, an owner deemed to have optimized corrosion control under 12VAC5-590-405 A 2 b (3); an owner subject to reduced monitoring pursuant to 12VAC5-590-375 B 4 d; or an owner subject to a monitoring waiver pursuant to 12VAC5-590-375 B 7, shall submit written documentation to the district engineer describing the change or addition. The district engineer must review and the commissioner must approve the addition of a new source or a long-term change in treatment before it is implemented by the owner. Examples of long-term treatment changes include the addition of a new treatment process or modification of an existing treatment process. Examples of modification include switching secondary disinfectants, switching coagulants (e.g., alum to ferric chloride), switching corrosion inhibitor products (e.g., orthophosphate to blended phosphate). Long-term changes can include dose changes to existing chemicals if the waterworks is planning long-term changes to its finished water pH or residual inhibitor concentration. Long-term treatment changes would not include chemical dose fluctuations associated with daily raw water quality changes.

d. The owner of any small waterworks applying for a monitoring waiver under 12VAC5-590-375 B 7 or subject to a waiver granted pursuant to 12VAC5-590-375 B 7 c, shall provide the following information to the commissioner in writing by the specified deadline:

(1) By the start of the first applicable monitoring period in 12VAC5-590-375 B 4, the owner of any small waterworks applying for a monitoring waiver shall provide the documentation required to demonstrate that it meets the waiver criteria of 12VAC5-590-375 B 7 a and 12VAC5-590-375 B 7 b.

(2) No later than nine years after the monitoring previously conducted pursuant to 12VAC5-590-375 B 7 b or 12VAC5-590-375 B 7 d (1), the owner of each small waterworks desiring to maintain its monitoring waiver shall provide the information required by 12VAC5-590-375 B 7 d (1) and 12VAC5-590-375 B 7 d (2).

(3) No later than 60 days after becoming aware that it is no longer free of lead-containing or copper-containing material, the owner of each small waterworks with a monitoring waiver shall provide written notification to the district engineer, setting forth the circumstances resulting in the lead-containing or copper-containing materials being introduced into the waterworks and what corrective action, if any, the owner plans to take to remove these materials.

e. The owner of each groundwater-source waterworks that limits water quality parameter monitoring to a subset of entry points under 12VAC5-590-375 C 3 c shall provide, by the commencement of such monitoring, written correspondence to the district engineer that identifies the selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the waterworks.

2. Water supply (source water) monitoring reporting requirements.

a. An owner shall report the sampling results for all source water samples collected in accordance with 12VAC5-590-375 D within the first 10 days following the end of each source water monitoring period (i.e., annually, per compliance period, per compliance cycle) specified in 12VAC5-590-375 D.

b. With the exception of the first round of source water sampling conducted pursuant to 12VAC5-590-375 D 2, the owner shall specify any site which was not sampled during previous monitoring periods, and include an explanation of why the sampling point has changed.

3. Corrosion control treatment reporting requirements. By the applicable dates under 12VAC5-590-405 A 2 ~~(a)~~ a, owners shall report the following information:

a. For owners demonstrating that they have already optimized corrosion control, information required in 12VAC5-590-405 A 2 b (2) or 12VAC5-590-405 A 2 b (3).

b. For owners required to optimize corrosion control, the owner's recommendation regarding optimal corrosion control treatment under 12VAC5-590-405 A 1 a.

c. For owners required to evaluate the effectiveness of corrosion control treatments under 12VAC5-590-405 A 1 c, the information required by that subdivision.

d. For owners required to install optimal corrosion control designated by the commissioner under 12VAC5-590-405 A 1 d, a letter certifying that the owner has completed installing that treatment.

4. Water supply source water treatment reporting requirements. By the applicable dates in 12VAC5-590-405 B, owners shall provide the following information to the district engineer:

a. If required under 12VAC5-590-405 B 2 a, the owner's recommendation regarding source water treatment;

b. For owners required to install source water treatment under 12VAC5-590-405 B 2 b, a letter certifying that the owner has completed installing the treatment designated by the commissioner within 24 months after the commissioner designated the treatment.

5. Lead service line replacement reporting requirements. Owners shall report the following information to the district engineer to demonstrate compliance with the requirements of 12VAC5-590-405 C:

a. No later than 12 months after the end of a monitoring period in which a waterworks exceeds the lead action level in sampling referred to in 12VAC5-590-405 C 1, the owner shall submit written documentation to the district engineer of the materials evaluation conducted as required in 12VAC5-590-375 B 1, to identify the initial number of lead service lines in the distribution system at the time the waterworks exceeds the lead action level, and provide the owner's schedule for annually replacing at least 7.0% of the initial number of lead service lines in its distribution system.

b. No later than 12 months after the end of a monitoring period in which a waterworks exceeds the lead action level in sampling referred to in 12VAC5-590-405 C 1, and every 12 months thereafter, the owner shall demonstrate to the district engineer in writing that the owner has either:

(1) Replaced in the previous 12 months at least 7.0% of the initial lead service lines (or a greater number of lines specified by the commissioner under 12VAC5-590-405 C 6) in the distribution system, or

(2) Conducted sampling that demonstrates that the lead concentration in all service line samples from an individual line(s), taken pursuant to 12VAC5-590-375 B 2 c, is less than or equal to 0.015 mg/L. In such cases, the total number of lines replaced and/or which meet the criteria in 12VAC5-590-405 C 4 shall equal at least 7.0% of the initial number of lead lines identified under subdivision ~~D~~ F 5 a of this section (or the percentage specified by the commissioner under 12VAC5-590-405 C 6).

c. The annual letter submitted to the district engineer under subdivision ~~D~~ F 5 b of this section shall contain the following information:

(1) The number of lead service lines scheduled to be replaced during the previous year of the waterworks' replacement schedule;

(2) The number and location of each lead service line replaced during the previous year of the waterworks' replacement schedule;

(3) If measured, the water lead concentration and location of each lead service line sampled, the sampling method, and the date of sampling.

d. The owner of any waterworks that collects lead service line samples following partial lead service line replacement required by 12VAC5-590-405 C shall report the results to the district engineer within the first ten days of the month following the month in which the owner receives the laboratory results, or as specified by the commissioner. Owners shall also report any additional information as specified by the commissioner, and in a time and manner prescribed by the commissioner, to verify that all partial lead service line replacement activities have taken place.

6. Public education program reporting requirements. Owners shall report the following information to the district engineer to demonstrate compliance with the requirements of 12VAC5-590-405 D.

a. The owner of any waterworks that is subject to the public education requirements in 12VAC5-590-405 D shall, within 10 days after the end of each period in which the owner is required to perform public education tasks in accordance with 12VAC5-590-405 D 2, send written notice to the district engineer that contains:

(1) A demonstration that the owner has delivered the public education materials that meet the content requirements of 12VAC5-590-405 D 1 and the delivery requirements of 12VAC5-590-405 D 2, and

(2) A list of all the newspapers, radio stations, television stations, and facilities and organizations to which the owner delivered public education materials during the period in which the owner was required to perform public education tasks.

b. Unless required by the commissioner, an owner who previously has submitted the information required by subdivision ~~D~~ F 6 a (2) of this section need not resubmit the information required by subdivision ~~D~~ F 6 a (2) of this section, as long as there has been no changes in the distribution list and the owner certifies that the public education materials were distributed to the same list submitted previously.

c. No later than three months following the end of the monitoring period, the owner shall mail a sample copy of the consumer notification of tap results to the district engineer along with a certification that the notification has been distributed in a manner consistent with the requirements of 12VAC5-590-405 D 4.

7. Reporting of additional monitoring data. The owner of any waterworks which collects sampling data in addition to that required by 12VAC5-590-375 shall report the results to the district engineer within the first 10 days following the end of the applicable monitoring period under 12VAC5-590-375 B, 12VAC5-590-375 C, and 12VAC5-590-375 D during which the samples are collected.

8. Reporting of the 90th percentile lead and copper concentrations where the district engineer calculates a waterworks' 90th percentile concentrations. An owner is not required to report the 90th percentile lead and copper concentrations measured from among all lead and copper tap samples collected during each monitoring period, as required by subdivision ~~D~~ F 1 a (4) of this section if:

a. The commissioner has previously notified the owner that the district engineer will calculate the waterworks' 90th percentile lead and copper concentrations, based on the lead and copper tap results submitted pursuant to subdivision ~~D~~ F 8 b (1) of this section, and has specified a date before the end of the applicable monitoring period by which the owner shall provide the results of the lead and copper tap water samples;

b. The owner has provided the following information to the district engineer by the date specified in subdivision ~~D~~ F 8 a of this section:

(1) The results of all tap samples for lead and copper including the location of each site and the criteria under 12VAC5-590-375 B 1 c through 12VAC5-590-375 B 1 f or 12VAC5-590-375 B 1 g under which the site was selected for the waterworks sampling pool, pursuant to subdivision ~~D~~ F 1 a (1) of this section;

(2) An identification of sampling sites utilized during the current monitoring period that were not sampled during the previous monitoring periods, and an explanation why sampling sites have changed; and

(3) The district engineer has provided the results of the 90th percentile lead and copper calculations, in writing, to the owner before the end of the monitoring period.

~~E.~~ G. Reporting requirements for disinfection byproducts. Owners shall report the following information in accordance with subsection A of this section. (The district engineer may choose to perform calculations and determine whether the PMCL was violated, in lieu of having the owner report that information):

1. Running Annual Average Reporting:

a. The owner of a waterworks monitoring for TTHM and HAA5 under the requirements of 12VAC5-590-370 B 3 e (1) on a quarterly or more frequent basis shall report:

(1) The number of samples taken during the last quarter.

(2) The location, date, and result of each sample taken during the last quarter.

(3) The arithmetic average of all samples taken in the last quarter.

(4) The annual arithmetic average of the quarterly arithmetic averages of this section for the last four quarters.

(5) Whether, based on 12VAC5-590-410 C 2 b (1) (a), the PMCL was violated.

b. The owner of a waterworks monitoring for TTHMs and HAA5 under the requirements of 12VAC5-590-370 B 3 e (1) less frequently than quarterly (but at least annually) shall report:

(1) The number of samples taken during the last year.

(2) The location, date, and result of each sample taken during the last monitoring period.

(3) The arithmetic average of all samples taken over the last year.

(4) Whether, based on 12VAC5-590-410 C 2 b (1) (a) the PMCL was violated.

c. The owner of a waterworks monitoring for TTHMs and HAA5 under the requirements of 12VAC5-590-370 B 3 e (1) less frequently than annually shall report:

(1) The location, date, and result of the last sample taken.

(2) Whether, based on 12VAC5-590-410 C 2 b (1) (a), the PMCL was violated.

2. Locational Running Annual Average (LRAA) Reporting:

a. Owners shall report the following information for each monitoring location to the commissioner:

(1) Number of samples taken during the last quarter.

(2) Date and results of each sample taken during the last quarter.

(3) Arithmetic average of quarterly results for the last four quarters for each LRAA, beginning at the end of the fourth calendar quarter that follows the compliance date and at the end of each subsequent quarter. If the LRAA calculated based on fewer than four quarters of data would cause the PMCL to be exceeded regardless of the monitoring results of subsequent quarters, the owner shall report this information to the commissioner as part of the first report due following the compliance date or anytime thereafter that this determination is made. If the owner is required to conduct monitoring at a frequency that is less than quarterly, the owner shall make compliance calculations beginning with the first compliance sample taken after the compliance date, unless the owner is required to conduct increased monitoring under 12VAC5-590-370 B 3 e (3) (g).

(4) Whether, based on Table 2.13, the PMCL was violated at any monitoring location.

(5) Any operational evaluation levels, under 12VAC5-590-410 C 2 b (1) (b) (iv), that were exceeded during the

quarter and, if so, the location and date, and the calculated TTHM and HAA5 levels.

b. Owners of waterworks using surface water or GUDI seeking to qualify for or remain on reduced TTHM/HAA5 monitoring shall report the following source water TOC information for each treatment plant that treats surface water or ground water under the direct influence of surface water to the commissioner within 10 days of the end of any quarter in which monitoring is required:

(1) The number of source water TOC samples taken each month during last quarter.

(2) The date and result of each sample taken during last quarter.

(3) The quarterly average of monthly samples taken during last quarter or the result of the quarterly sample.

(4) The running annual average (RAA) of quarterly averages from the past four quarters.

(5) Whether the RAA exceeded 4.0 mg/L.

3. The owner of a waterworks monitoring for chlorite under the requirements of 12VAC5-590-370 B 3 f shall report:

a. The number of entry point samples taken each month for the last three months.

b. The location, date, and result of each sample (both entry point and distribution system) taken during the last quarter.

c. For each month in the reporting period, the arithmetic average of all samples taken in each three sample set taken in the distribution system.

d. Whether, based on 12VAC5-590-410 C 2 b, the PMCL was violated, in which month and how many times it was violated each month.

4. The owner of a waterworks monitoring for bromate under the requirements of 12VAC5-590-370 B 3 g shall report:

a. The number of samples taken during the last quarter.

b. The location, date, and result of each sample taken during the last quarter.

c. The arithmetic average of the monthly arithmetic averages of all samples taken in the last year.

d. Whether, based on 12VAC5-590-410 C 2 b, the PMCL was violated.

~~F.~~ H. Reporting requirements for disinfectants. Owners shall report the information specified below in accordance with subsection A of this section. (The district engineer may choose to perform calculations and determine whether the MRDL was violated, in lieu of having the owner report that information):

1. The owner of a waterworks monitoring for chlorine or chloramines under the requirements of 12VAC5-590-370 B 3 h shall report:

a. The number of samples taken during each month of the last quarter.

b. The monthly arithmetic average of all samples taken in each month for the last 12 months.

c. The arithmetic average of all monthly averages for the last 12 months.

d. Whether, based on 12VAC5-590-410 C 2 c, the MRDL was violated.

2. The owner of a waterworks monitoring for chlorine dioxide under the requirements of 12VAC5-590-370 B 3 h shall report:

a. The dates, results, and locations of samples taken during the last quarter.

b. Whether, based on 12VAC5-590-410 C 2 c, the MRDL was violated.

c. Whether the MRDL was exceeded in any two consecutive daily samples and whether the resulting violation was acute or nonacute.

~~G.~~ I. Reporting requirements for disinfection byproduct precursors and enhanced coagulation or enhanced softening. Owners shall report the following information in accordance with subsection A of this section. (The district engineer may choose to perform calculations and determine whether the treatment technique was met, in lieu of having the owner report that information):

1. The owner of a waterworks monitoring monthly or quarterly for TOC under the requirements of 12VAC5-590-370 B 3 i and required to meet the enhanced coagulation or enhanced softening requirements in 12VAC5-590-420 H 2 b or c shall report:

a. The number of paired (source water and treated water) samples taken during the last quarter.

b. The location, date, and results of each paired sample and associated alkalinity taken during the last quarter.

c. For each month in the reporting period that paired samples were taken, the arithmetic average of the percent reduction of TOC for each paired sample and the required TOC percent removal.

d. Calculations for determining compliance with the TOC percent removal requirements, as provided in 12VAC5-590-420 H 3 a.

e. Whether the system is in compliance with the enhanced coagulation or enhanced softening percent removal requirements in 12VAC5-590-420 H 2 a for the last four quarters.

2. The owner of a waterworks monitoring monthly or quarterly for TOC under the requirements of 12VAC5-590-370 B 3 i and meeting one or more of the alternative

compliance criteria in 12VAC5-590-420 H 1 b or c shall report:

a. The alternative compliance criterion that the system is using.

b. The number of paired samples taken during the last quarter.

c. The location, date, and result of each paired sample and associated alkalinity taken during the last quarter.

d. The running annual arithmetic average based on monthly averages (or quarterly samples) of source water TOC for systems meeting a criterion in 12VAC5-590-420 H 1 b (1) or (3) or of treated water TOC for systems meeting the criterion in 12VAC5-590-420 H 1 b (2).

e. The running annual arithmetic average based on monthly averages (or quarterly samples) of source water SUVA for systems meeting the criterion in 12VAC5-590-420 H 1 b (5) or of treated water SUVA for systems meeting the criterion in 12VAC5-590-420 H 1 b (6).

f. The running annual average of source water alkalinity for systems meeting the criterion in 12VAC5-590-420 H 1 b (3) and of treated water alkalinity for systems meeting the criterion in 12VAC5-590-420 H 1 c (1).

g. The running annual average for both TTHM and HAA5 for systems meeting the criterion in 12VAC5-590-420 H 1 b (3) or (4).

h. The running annual average of the amount of magnesium hardness removal (as $CaCO_3$, in mg/L) for systems meeting the criterion in 12VAC5-590-420 H 1 c (2).

i. Whether the system is in compliance with the particular alternative compliance criterion in 12VAC5-590-420 H 1 b or c.

~~H.~~ J. Reporting of analytical results to the district engineer will not be required in instances where the state laboratory performs the analysis and reports same to the district engineer.

~~I.~~ K. Recycle flow reporting requirements. The owner of any waterworks supplied by a surface water source and waterworks supplied by a groundwater source under the direct influence of surface water that employs conventional filtration or direct filtration treatment shall notify the commissioner in writing by December 8, 2003, if the system recycles spent filter backwash water, thickener supernatant, or liquids from dewatering processes. This notification shall include, as a minimum:

1. A plant schematic showing the origin of all flows that are recycled, including but not limited to spent filter backwash water, thickener supernatant, and liquids from dewatering processes. The schematic shall also specify the hydraulic conveyance used to transport all recycle flows and the location where recycle flows are reintroduced back into the treatment plant.

2. Typical recycle flow in gallons per minute (gpm), the highest observed plant flow experienced in the previous year (gpm), design flow for the treatment plant (gpm), and state-approved operating capacity for the plant.

~~J.~~ L. Reporting of requirements for enhanced treatment for cryptosporidium.

1. Owners shall report sampling schedules under 12VAC5-590-420 B 3 a (5) and source water monitoring results under ~~12VAC5-590-530 C~~ subsection E 1 c of this section unless they notify the commissioner that they will not conduct source water monitoring due to meeting the criteria of 12VAC5-590-420 B 3 a (4).

2. Owners shall report the use of uncovered finished water storage facilities to the commissioner as described in 12VAC5-590-420 L.

3. Owners of waterworks that provide filtration shall report their Cryptosporidium bin classification as described in 12VAC-590-420 B 3 c.

4. Owners shall report disinfection profiles and benchmarks to the commissioner as described in 12VAC5-590-420 B 3 b (1) through (2) prior to making a significant change in disinfection practice.

5. Owners shall report to the commissioner in accordance with the following table for any microbial toolbox options used to comply with treatment requirements under 12VAC5-590-420 B 3 c (2). Alternatively, the commissioner may approve a waterworks to certify operation within required parameters for treatment credit rather than reporting monthly operational data for toolbox options.

Microbial Toolbox Reporting Requirements

Toolbox option	Owners shall submit the following information	On the following schedule
Alternative source/intake management	Verification that waterworks has relocated the intake or adopted the intake withdrawal procedure reflected in monitoring results	No later than the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Presedimentation	Monthly verification of the following: (i) Continuous basin operation (ii) Treatment of 100% of the flow (iii) Continuous addition of a coagulant (iv) At least 0.5-log mean reduction of influent turbidity or compliance with alternative performance criteria approved by the commissioner	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).

Two-stage lime softening	Monthly verification of the following: (i) Chemical addition and hardness precipitation occurred in two separate and sequential softening stages prior to filtration (ii) Both stages treated 100% of the plant flow	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Bank filtration	Initial demonstration of the following: (i) Unconsolidated, predominantly sandy aquifer (ii) Setback distance of at least 25 ft. (0.5-log credit) or 50 ft. (1.0-log credit)	No later than the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
	If monthly average of daily max turbidity is greater than ~~1~~ 1.0 NTU then system shall report result and submit an assessment of the cause	Report within 30 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Combined filter performance	Monthly verification of combined filter effluent (CFE) turbidity levels less than or equal to 0.15 NTU in at least 95% of the four-hour CFE measurements taken each month	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Individual filter performance	Monthly verification of the following: (i) Individual filter effluent (IFE) turbidity levels less than or equal to 0.15 NTU in at least 95% of samples each month in each filter (ii) No individual filter greater than 0.3 NTU in two consecutive readings 15 minutes apart	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Demonstration of performance	Results from testing following a protocol approved by the commissioner	No later than the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
	(ii) As required by the commissioner, monthly verification of operation within conditions of commissioner approval for demonstration of performance credit	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Bag filters and cartridge filters	Demonstration that the following criteria are met: (i) Process meets the definition of bag or cartridge filtration (ii) Removal efficiency established through challenge testing that meets criteria in 12VAC5-590-420 B 3 d (6) (a)	No later than the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
	Monthly verification that 100% of plant flow was filtered	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Membrane filtration	Results of verification testing demonstrating the following: (i) Removal efficiency established through challenge testing that meets criteria in subsection J of this section (ii) Integrity test method and parameters, including resolution, sensitivity, test frequency, control limits, and associated baseline	No later than the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).

	Monthly report summarizing the following: (i) All direct integrity tests above the control limit (ii) If applicable, any turbidity or alternative indirect integrity monitoring approved by the commissioner results triggering direct integrity testing and the corrective action that was taken	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Second stage filtration	Monthly verification that 100% of flow was filtered through both stages and that first stage was preceded by a coagulation step	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Slow sand filtration (as secondary filter)	Monthly verification that both a slow sand filter and a preceding separate stage of filtration treated 100% of flow from surface water or groundwater under the direct influence of surface water sources	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Chlorine dioxide	Summary of CT values for each day as described in 12VAC5-590-420 B 3 d (7)(b)(i)	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
Ozone	Summary of CT values for each day as described in 12VAC5-590-420 B 3 d (7)(b)(ii)	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
UV	Validation test results demonstrating operating conditions that achieve required UV dose	No later than the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).
	Monthly report summarizing the percentage of water entering the distribution system that was not treated by UV reactors operating within validated conditions for the required dose as specified in 12VAC5-590-420 B 3 d (7) (c)	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in 12VAC5-590-420 B 3 c (3).

~~K.~~ M. Reporting requirements for groundwater systems. Owners of groundwater systems shall report the following information in accordance with subsection A of this section.

1. Owners of groundwater systems conducting compliance monitoring as required by 12VAC5-590-421 C shall notify the ODW as soon as possible any time the groundwater system fails to meet the ODW specified minimum residual disinfectant concentration for more than four hours, but no later than the next business day.

2. Owners of groundwater systems that are required to conduct corrective action as described in 12VAC5-590-421 A shall notify the ODW within 30 days of completion of corrective action.

3. Owners of groundwater systems subject to the source monitoring requirements of 12VAC5-590-379 that do not conduct this monitoring under the provision of 12VAC5-590-380 E, shall provide documentation to the ODW within 30 days of the collection that the sample met the criteria defined in 12VAC5-590-380 E.

~~L.~~ N. Information to be included on the operation monthly report shall be determined by the commissioner for each waterworks on an individual basis. Appendix G contains suggested monthly operation report requirements.

12VAC5-590-540. Public notices.

A. All owners shall give public notice to (i) persons served by the waterworks and (ii) the owner of any consecutive waterworks to which it sells or otherwise provides water under the following circumstances:

1. Tier 1.

a. ~~Violation of the PMCL for total coliforms when fecal coliform or~~ When E. coli are present in the distribution system, or when the waterworks fails to test for E. coli when any repeat sample tests positive for total coliform;

b. ~~Failure to test for fecal coliforms or E. coli when any repeat sample tests positive for coliform~~ Violation of the PMCL for E.coli;

c. Violation of the PMCL for nitrate, nitrite, or total nitrate and nitrite;

d. Failure to take a confirmation sample within 24 hours of the waterworks receipt of the first sample showing an exceedance of the nitrate or nitrite PMCL;

e. Exceedance of the nitrate PMCL by noncommunity waterworks, where permitted to exceed the PMCL by the commissioner;

f. Violation of the MRDL for chlorine dioxide when one or more samples taken in the distribution system the day following an exceedance of the MRDL at the entry point of the distribution system exceed the MRDL;

g. Failure to monitor chlorine dioxide residuals in the distribution system the day following an exceedance of the chlorine dioxide MRDL at the entrance to the distribution system;

h. Violation of the treatment technique requirements for filtration and disinfection resulting from a single exceedance of the maximum allowable turbidity limit, where the commissioner determines after consultation that a Tier 1 notice is required;

i. Failure to consult with the commissioner within 24 hours after the owner learns of the violation of the treatment technique requirements for filtration and disinfection resulting from a single exceedance of the maximum allowable turbidity limit;

j. Occurrence of a waterborne disease outbreak or other waterborne emergency (such as a failure or significant interruption in key water treatment processes, a natural disaster that disrupts the water supply or distribution system, or a chemical spill or unexpected loading of possible pathogens into the source water that significantly increases the potential for drinking water contamination);

k. Detection of E. coli in groundwater source samples; or

l. 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 commissioner on a case-by-case basis.

2. Tier 2.

a. All violations of the PMCL, MRDL, and treatment technique requirements, except where a Tier 1 public notice is required or where the commissioner determines that a Tier 1 notice is required per subdivision A 1 l of this subsection;

b. Violations of the monitoring and testing procedure requirements, where the commissioner determines that a Tier 2 rather than a Tier 3 public notice is required, taking into account potential health impacts and persistence of the violation;

c. Failure to comply with the terms and conditions of any variance or exemption in place;

d. Failure to take corrective action or failure to maintain at least four-log treatment of viruses (using inactivation, removal, or an approved combination of four-log virus inactivation and removal) before or at the first customer under the treatment technique requirements for waterworks with groundwater sources.

3. Tier 3.

a. Monitoring violations, except where a Tier 1 public notice is required per subdivisions 1 d and 1 g of this subsection, or where the commissioner determines that a Tier 2 public notice is required per subdivision 2 b of this subsection;

b. Failure to comply with a testing procedure, except where a Tier 1 notice is required per subdivision 1 b of this subsection or where the commissioner determines that a Tier 2 notice is required per subdivision 2 b of this subsection;

c. Operation under a variance or an exemption to a PMCL or treatment technique requirement;

d. Availability of unregulated contaminant monitoring results; ~~and~~

e. Exceedance of the fluoride secondary maximum contaminant level (SMCL)~~.~~; and

f. Reporting and recordkeeping violations specified in 12VAC5-590-530 B, C, and D, and 12VAC5-590-550 L.

B. If a waterworks has a violation, failure, exceedance, or situation in a portion of the distribution system that is physically or hydraulically isolated from other parts of the distribution system, the commissioner may allow the owner to limit distribution of the public notice to only those persons served by that portion of the waterworks which is out of compliance. The decision granting limited distribution of the public notice shall be issued in writing.

C. Public notice distribution requirements.

1. For Tier 1 violations, exceedances, or situations, the owner shall:

a. Provide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation;

b. Initiate consultation with the commissioner as soon as practical, but no later than 24 hours after the owner learns of the violation or situation, to determine additional public notice requirements;

c. Comply with any additional public notice requirements, including any repeat notices or direction on the duration of the posted notices, that are established as a result of the consultation with the commissioner. Such requirements may include the timing, form, manner,

frequency, and content of repeat notices (if any) and other actions designed to reach all persons served; and

d. Provide the public notice in a form and manner reasonably calculated to reach all persons served. The form and manner shall fit the specific situation, and shall be designed to reach residential, transient, and non-transient users of the waterworks. In order to reach all persons served, owners shall use, at a minimum, one or more of the following forms of delivery:

(1) Appropriate broadcast media (such as radio and television);

(2) Posting of the public notice in conspicuous locations throughout the area served by the waterworks;

(3) Hand delivery of the public notice to persons served by the water system; or

(4) Another delivery method approved in writing by the commissioner.

2. For Tier 2 violations, exceedances, or situations the owner shall:

a. Provide the public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation. The commissioner may allow, on a case-by-case determination, additional time for the initial notice of up to three months from the date the owner learns of the violation, exceedance, or situation; however, the commissioner shall not grant an extension to the 30-day deadline for any unresolved violation.

b. Repeat the public notice every three months as long as the violation, exceedance, or situation persists, unless the commissioner determines that appropriate circumstances warrant a different repeat notice frequency. In no circumstance shall the repeat notice be given less frequently than once per year. Repeat notice frequency less than every three months shall not be allowed for (i) ~~a PMCL violation total coliforms;~~ a violation as specified in 12VAC5-590-380 B and 12VAC5-590-392 F; (ii) a treatment technique violation for filtration and disinfection; and (iii) other ongoing violations, exceedances, or situations.

c. Consult with the commissioner as soon as practical but no later than 24 hours after the owner learns of a violation of the treatment technique requirements for filtration and disinfection resulting from a single exceedance of the maximum allowable turbidity limit to determine whether a Tier 1 public notice is required to protect public health. If consultation does not take place within the 24-hour period, the owner shall distribute a Tier 1 public notice of the violation within the next 24 hours (i.e., no later than 48 hours after the owner learns of the violation).

d. Provide the initial public notice and any repeat notices in a form and manner that is reasonably calculated to reach persons served in the required time period.

(1) For community waterworks, the owner shall:

(a) Mail or otherwise directly deliver the public notice to each customer receiving a bill and to other service connections to which water is delivered by the waterworks; and

(b) Use any other distribution method reasonably calculated to reach other persons regularly served by the waterworks, if they would not normally be reached by the notice required in subdivision 2 d (1) (a) of this subsection. Such persons may include those who do not pay water bills or do not have service connection addresses (e.g., house renters, apartment dwellers, university students, nursing home patients, prison inmates, etc.). Other methods may include: Publication in a local newspaper; delivery of multiple copies for distribution by customers that provide their drinking water to others (e.g., apartment building owners or large private employers); posting in public places served by the system or on the Internet; or delivery to community organizations.

(2) For noncommunity waterworks, the owner shall:

(a) Post the public notice in conspicuous locations throughout the distribution system frequented by persons served by the waterworks, or by mail or direct delivery to each customer and service connection (where known); and

(b) Use any other method reasonably calculated to reach other persons served by the system if they would not normally be reached by the notice required in subdivision 2 d (2) (a) of this subsection. Such persons may include those served who may not see a posted notice because the posted notice is not in a location they routinely pass by.

Other methods may include publication in a local newspaper or newsletter distributed to customers, use of e-mail to notify employees or students, or delivery of multiple copies in central locations (e.g., community centers).

e. Maintain a posted public notice in place for as long as the violation, exceedance, or situation persists, but in no case for less than seven days, even if the violation, exceedance, or situation is resolved.

3. For Tier 3 violations, exceedances, or situations the owner shall:

a. Provide the public notice not later than one year after the owner learns of the violation, exceedance, or situation or begins operating under a variance or exemption.

b. Repeat the public notice annually for as long as the violation, exceedance, variance, exemption, or other situation persists.

c. Maintain a posted public notice in place for as long as the violation, exceedance, variance, exemption, or other situation persists, but in no case less than seven days even if the violation or situation is resolved.

d. Instead of individual Tier 3 public notices, the owner may use an annual report detailing all violations, exceedances, and situations that occurred during the previous twelve months, as long as the timing requirements of subdivision 3 a of this subsection are met. For community waterworks the Consumer Confidence Report (CCR) may be used as a vehicle for the initial Tier 3 public notice and all required repeat notices, provided:

(1) The CCR is provided to persons served by the waterworks no later than 12 months after the owner learns of the violation, exceedance, or other situation;

(2) The Tier 3 public notice contained in the CCR meets the content requirements in subsection E of this section.

(3)The CCR is distributed in a manner meeting the delivery requirements in subdivision D 3 e of this section.

e. For community waterworks the owner shall:

(1) Mail or otherwise directly deliver the public notice to each customer receiving a bill and to other service connections to which water is delivered by the waterworks; and

(2) Use any other method reasonably calculated to reach other persons regularly served by the system, if they would not normally be reached by the notice required in subdivision 3 e (1) of this subsection. Such persons may include those who do not pay water bills or do not have service connection addresses (e.g., house renters, apartment dwellers, university students, nursing home patients, prison inmates, etc.). Other methods may include publication in a local newspaper, delivery of multiple copies for distribution by customers that provide their drinking water to others (e.g., apartment building owners or large private employers), posting in public places or on the Internet, or delivery to community organizations.

f. For noncommunity waterworks the owner shall:

(1) Post the public notice in conspicuous locations throughout the distribution system frequented by persons served by the waterworks, or by mail or direct delivery to each customer and service connection (where known); and

(2) Use any other method reasonably calculated to reach other persons served by the system, if they would not normally be reached by the notice required in subdivision 3 f (1) of this subsection. Such persons may include those who may not see a posted notice because the notice is not in a location they routinely pass by. Other methods may include: Publication in a local newspaper or newsletter distributed to customers; use of E-mail to notify employees or students; or, delivery of multiple copies in central locations (e.g., community centers).

D. Public notice contents.

1. Each public notice for PMCL, MRDL, and TT violations and other situations requiring a public notice shall include the following elements:

a. A description of the violation, exceedance, or situation, including the contaminant(s) of concern, and (as applicable) the contaminant level(s);

b. When the violation or situation occurred;

c. Any potential adverse health effects from the violation, exceedance, or situation, including the standard language under subdivision 5 a or 5 b of this subsection, whichever is applicable;

d. The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in their drinking water;

e. Whether alternative water supplies should be used;

f. What actions consumers should take, including when they should seek medical help, if known;

g. What the owner is doing to correct the violation, exceedance, or situation;

h. When the owner expects the waterworks to return to compliance or resolve the situation;

i. The name, business address, and phone number of the owner, operator, or designee as a source of additional information concerning the notice; and

j. A statement to encourage the notice recipient to distribute the public notice to other persons served, using the standard language under subdivision 5 c of this subsection, where applicable.

2. Each public notice for a waterworks that has been granted a variance or exemption shall include the following elements:

a. An explanation of the reasons for the variance or exemption;

b. The date on which the variance or exemption was issued;

c. A brief status report on the steps the owner is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption; and

d. A notice of any opportunity for public input in the review of the variance or exemption.

3. Each public notice for a waterworks that violates the conditions of a variance or exemption shall contain the ten elements listed in subdivision 1 of this subsection.

4. Each public notice shall:

a. Be displayed in a conspicuous way when printed or posted;

b. Not contain overly technical language or very small print;

c. Not be formatted in a way that defeats the purpose of the notice;

d. Not contain language which nullifies the purpose of the notice.

e. Contain information in the appropriate language(s), for waterworks serving a large proportion of non-English speaking consumers, regarding the importance of the notice or contain a telephone number or address where persons served may contact the owner to obtain a translated copy of the notice or to request assistance in the appropriate language.

5. The public notice shall include the following standard language:

a. For PMCL or MRDL violations, treatment technique violations, and violations of the condition of a variance or exemption--standard health effects language as specified in Appendix O corresponding to each PMCL, MRDL, and treatment technique violation and for each violation of a condition of a variance or exemption. For violation of the treatment technique requirement, the public notice shall also include one or both of the following statements, as appropriate:

(1) We failed to conduct the required assessment.

(2) We failed to correct all sanitary defects that were identified during the assessment.

b. For monitoring and testing procedure violations including failure to monitor for total coliform bacteria or E. coli prior to serving water from a seasonal waterworks--standard language as specified below, including the language necessary to fill in the blanks:

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During (compliance period), we (did not monitor or test or did not complete all monitoring or testing) for (contaminant(s)), and therefore cannot be sure of the quality of your drinking water during that time.

c. For all public notices--standard language (where applicable), as specified below:

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

d. For total coliform bacteria treatment technique violations the public notice shall include the following statement: We found coliforms indicating the need to look for potential problems in our waterworks. When this occurs, we are required to conduct assessments to identify problems and correct any problems that are found. The public notice shall also include the following statements, as appropriate:

(1) We failed to conduct the required assessment.

(2) We failed to correct all sanitary defects that were identified during the assessment.

e. For E. coli treatment technique violations the public notice shall include the following statement: We violated the standard for E. coli, indicating the need to look for potential problems in our waterworks. When this occurs, we are required to conduct a detailed assessment to identify problems and to correct any problems that are found. The public notice shall also include the following statements, as appropriate:

(1) We failed to conduct the required assessment.

(2) We failed to correct all sanitary defects that were identified during the assessment.

E. Public notice to new billing units or customers.

1. For community waterworks the owner shall give a copy of the most recent public notice for any continuing violation, variance or exemption, or other ongoing situations requiring a public notice to all new billing units or new customers prior to or at the time service begins.

2. For noncommunity waterworks the owner shall continuously post the public notice in conspicuous locations in order to inform new consumers of any continuing violation, variance or exemption, or other situation requiring a public notice for as long as the violation, variance, exemption, or other situation persists.

F. Special notice of the availability of unregulated contaminant monitoring results.

1. The owner of a community waterworks or non-transient, noncommunity waterworks shall notify persons served by the system of the availability of the results of such sampling no later than 12 months after the monitoring results are known.

2. The special notice shall meet the requirements for a Tier 3 public notice and shall identify a person and telephone number to contact for information on the monitoring results.

G. Special notice for exceedance of the SMCL for fluoride.

1. Community waterworks that exceed the SMCL of 2 mg/L, but do not exceed the PMCL of 4 mg/L for fluoride, shall provide public notice to persons served as soon as practical but no later than 12 months from the day the owner learns of the exceedance.

2. A copy of the notice shall be sent to all new billing units and new customers at the time service begins and to the district engineer.

3. The owner shall repeat the notice at least annually for as long as the SMCL is exceeded.

4. If the public notice is posted, the notice shall remain in place for as long as the SMCL is exceeded, but in no case less than seven days even if the exceedance is eliminated.

5. On a case-by-case basis, the commissioner may require an initial notice sooner than 12 months and repeat notices more frequently than annually.

6. The form and manner of the public notice (including repeat notices) shall meet the requirements for a Tier 3 public notice.

7. The public notice shall contain the following language, including the language necessary to fill in the blanks:

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community waterworks (name) has a fluoride concentration of (insert value) mg/L. Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the excess fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products by young children. Older children and adults may safely drink the water. Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/L of fluoride, but we are required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/L because of this cosmetic dental problem. For more information, please call (name of water system contact) of (name of community waterworks) at (phone number). Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-NSF-HELP.

H. Special notice for nitrate exceedances above PMCL by noncommunity waterworks.

1. The owner of a noncommunity waterworks granted permission by the commissioner to exceed the nitrate PMCL shall provide public notice to persons served meeting the requirements for a Tier 1 notice.

2. The public notice shall be posted continuously and shall indicate the fact that nitrate levels exceed 10 mg/L and the potential health effects of exposure, meeting the requirements for Tier 1 public notice delivery and content.

I. Special notice for repeated failure to conduct sampling of the source water for Cryptosporidium.

1. An owner who is required to sample source water shall provide public notice to persons served when he has failed to collect any three months of required samples. The form and manner of the public notice shall satisfy the requirements of a Tier 2 notice, and the notice shall be repeated in accordance with the requirements of a Tier 2 notice.

2. The notice shall contain the following language, including the language to fill in the blanks:

We are required to monitor the source of your drinking water for Cryptosporidium. Results of the monitoring are to be used to determine whether water treatment at the [blank – fill in treatment plant name] is sufficient to adequately remove Cryptosporidium from your drinking water. We are required to complete this monitoring and make this determination by [blank – fill in required bin determination date]. We "did not monitor" or "did not complete all monitoring or testing" on schedule and, therefore, we may not be able to determine by the required date what treatment modifications, if any, shall be made to ensure adequate Cryptosporidium removal. Missing this deadline may, in turn, jeopardize our ability to have the required treatment modifications, if any, completed by the deadline required, [blank – fill in date].

For more information, please call [blank – fill in name of waterworks contact] of [blank – fill in name of waterworks] at [blank – fill in phone number].

3. The notice shall contain a description of what the owner is doing to correct the violation and when the owner expects the waterworks to return to compliance or resolve the situation.

J. Special notice for failure to determine bin classification or mean Cryptosporidium level.

1. An owner who is required to determine a bin classification or to determine mean Cryptosporidium level shall provide public notice to persons served when the determination has not been made as required. The form and manner of the public notice shall satisfy the requirements of a Tier 2 notice, and the notice shall be repeated in accordance with the requirements of a Tier 2 notice. However, a public notice is not required if the owner is complying with a schedule to address the violation approved by the ODW.

2. The notice shall contain the following language, including the language to fill in the blanks:

We are required to monitor the source of your drinking water for Cryptosporidium in order to determine by [blank – fill in date] whether water treatment at the [blank – fill in treatment plant name] is sufficient to adequately remove Cryptosporidium from you drinking water. We have not made this determination by the required date. Our failure to

do this may jeopardize our ability to have the required treatment modifications, if any, completed by the required deadline of [blank – fill in date]. For more information, please call [blank – fill in name of waterworks contact] of [blank – fill in name of waterworks] at [blank – fill in telephone number].

3. The notice shall contain a description of what the owner is doing to correct the violation and when the owner expects the waterworks to return to compliance or resolve the situation.

K. Special notice for significant deficiencies by noncommunity groundwater systems.

1. Any owner of a noncommunity groundwater system who has not corrected a significant deficiency within one year of being notified by the ODW shall provide public notice to the consumers.

2. The form and manner of the public notice shall satisfy the requirements of a Tier 2 notice.

3. The owner shall continue to notify the public annually until the requirements of 12VAC5-590-421 have been satisfied. The notice shall include:

a. The nature of the significant deficiency and the date it was identified by the ODW; and

b. The ODW approved plan and schedule for correcting the significant deficiency including interim measures, progress to date, and which of the interim measures have been completed.

4. For noncommunity groundwater systems with a large proportion of non-English speaking consumers, the notice shall contain information in the appropriate language or languages regarding the importance of the notice or contain a telephone number or address where the consumers may contact the owner to obtain a translated copy of the notice or assistance with the appropriate language.

5. If directed by the ODW, the owner of a noncommunity groundwater system with significant deficiencies that have been corrected shall inform the consumers of the significant deficiencies, how the deficiencies were corrected, and the date or dates of correction.

L. The district engineer may give notice to the public required by this section on behalf of the owner if the district engineer complies with the requirements of this section. However, the owner remains legally responsible for ensuring that the requirements of this section are met.

M. Within 10 days of completion of each initial and repeat public notice, the owner shall provide the district engineer:

1. A certification that he has fully complied with the public notice requirements; and

2. A representative copy of each type of notice distributed, published, posted and made available to the persons served by the waterworks and to the media.

N. The owner shall maintain copies of each public notice and certification for at least three years after issuance.

12VAC5-590-545. Consumer confidence reports.

A. Purpose and applicability.

1. Each community waterworks owner shall deliver to his customers an annual report that contains information on the quality of the water delivered by the waterworks and characterizes the risks, if any, from exposure to contaminants detected in the drinking water.

2. For the purpose of this section, customers are defined as billing units or service connections to which water is delivered by a community waterworks.

3. For the purpose of this section, a contaminant is detected when the laboratory reports the contaminant level as a measured level and not as nondetected (ND) or less than (<) a certain level. The owner shall utilize a laboratory that complies with 12VAC5-590-340, and the laboratory's analytical and reporting procedures shall have been in accordance with 12VAC5-590-440; laboratory certification requirements of the Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services; and consistent with current U. S. Environmental Protection Agency regulations found at 40 CFR Part 141.

B. Effective dates.

1. Each existing community waterworks owner shall deliver his report by July 1 annually.

2. The owner of a new community waterworks shall deliver his first report by July 1 of the year after its first full calendar year in operation and annually thereafter.

3. The owner of a community waterworks that sells water to a consecutive waterworks shall deliver the applicable information necessary to comply with the requirements contained in this section to the consecutive waterworks by April 1 annually, or on a date mutually agreed upon by the seller and the purchaser and specifically included in a contract between the parties.

C. Content.

1. Each community waterworks owner shall provide his customers an annual report that contains the information on the source of the water delivered as follows:

a. Each report shall identify the source or sources of the water delivered by the community waterworks by providing information on:

(1) The type of the water (e.g., surface water, ground water); and

(2) The commonly used name, if any, and location of the body or bodies of water.

b. Where a source water assessment has been completed, the report shall:

(1) Notify consumers of the availability of the assessment;

(2) Describe the means to obtain the assessment; and

(3) Include a brief summary of the waterworks' susceptibility to potential sources of contamination.

c. The owner should highlight in the report significant sources of contamination in the source water area if such information is readily available.

2. For the purpose of compliance with this section, each report shall include the following definitions:

a. "Maximum contaminant level goal" or "MCLG" means the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

b. "Maximum contaminant level" or "MCL" means the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

c. A report for a community waterworks operating under a variance or an exemption issued by the commissioner under 12VAC5-590-140 and 12VAC5-590-150 shall include the following definition: "Variances and exemptions" means state or EPA permission not to meet an MCL or a treatment technique under certain conditions.

d. A report that contains data on contaminants that EPA regulates using any of the following terms shall include the applicable definitions:

(1) "Treatment technique" means a required process intended to reduce the level of a contaminant in drinking water.

(2) "Action level" means the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that an owner shall follow.

(3) "Maximum residual disinfectant level goal" or "MRDLG" means the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

(4) "Maximum residual disinfectant level" or "MRDL" means the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

(5) "Level 1 assessment" means a study of the waterworks to identify potential problems and determine, if possible, why total coliform bacteria have been found in our waterworks.

(6) "Level 2 assessment" means a very detailed study of the waterworks to identify potential problems and determine, if possible, why an E. coli PMCL violation has occurred and why total coliform bacteria have been found in our waterworks on multiple occasions.

3. Information on detected contaminants.

a. This section specifies the requirements for information to be included in each report for the following contaminants:

(1) Contaminants subject to a PMCL, action level, maximum residual disinfectant level, or treatment technique as specified in 12VAC5-590-370;

(2) Unregulated contaminants subject to monitoring as specified in 12VAC5-590-370; and

(3) Disinfection byproducts or microbial contaminants, ~~except Cryptosporidium, for which monitoring is required by Information Collection Rule (40 CFR 141.142 and 141.143 (7-1-97 Edition))~~, except as provided under subdivision 5 a of this subsection, and which are detected in the finished water.

b. The data relating to these contaminants shall be displayed in one table or in several adjacent tables. Any additional monitoring results that a community waterworks owner chooses to include in the report shall be displayed separately.

c. The data shall be derived from data collected to comply with EPA and state monitoring and analytical requirements during the calendar year preceding the year the report is due, except that~~: (1) Where~~ where an owner is allowed to monitor for contaminants specified in subdivision 3 a (1) and 3 a (3) of this subsection less often than once a year, the table or tables shall include the date and results of the most recent sampling, and the report shall include a brief statement indicating that the data presented in the report are from the most recent testing done in accordance with the regulations. No data older than five years need be included.

~~(2) Results of monitoring in compliance with the Information Collection Rule (40 CFR 141.142 and 141.143 (7-1-97 Edition)) need only be included for five years from the date of last sample or until any of the detected contaminants becomes regulated and subject to routine monitoring requirements, whichever comes first.~~

d. For detected contaminants subject to a PMCL, action level, or treatment technique as specified in 12VAC5-590-370 and listed in Tables 2.1, 2.2 (Primary Maximum Contaminant Levels only), 2.3, 2.4 (Primary Maximum Contaminant Levels only), and 2.5, the table or tables shall contain:

(1) The PMCL for that contaminant expressed as a number equal to or greater than 1.0 as provided in Appendix O, with an exception for beta/photon emitters. When the detected level of beta/photon emitters has been reported in the units of pCi/L and does not exceed 50 pCi/L, the report may list the PMCL as 50 pCi/L. In this case, the owner shall include in the report the following

footnote: The PMCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles;

(2) The MCLG for that contaminant expressed in the same units as the PMCL as provided in Appendix O;

(3) If there is no PMCL for a detected contaminant, the table shall indicate that there is a treatment technique, or specify the action level, applicable to that contaminant, and the report shall include the definitions for treatment technique and/or action level, as appropriate, specified in subdivision 3 d of this subsection;

(4) For contaminants subject to a PMCL, except turbidity and ~~total coliforms~~ E. coli, the highest contaminant level used to determine compliance and the range of detected levels is as follows:

(a) When compliance with the PMCL is determined annually or less frequently, the highest detected level at any sampling point and the range of detected levels expressed in the same units as the PMCL.

(b) When compliance with the PMCL is determined by calculating a running annual average of all samples taken at a sampling point, the highest average of any of the sampling points and the range of all sampling points expressed in the same units as the PMCL. For the PMCLs for TTHM and HAA5, the owner shall include the highest locational running annual average and the range of individual sample results for all sampling points expressed in the same units as the PMCL. If more than one location exceeds the TTHM or HAA5 PMCL, the owner shall include the locational running annual averages for all locations that exceed the PMCL.

(c) When compliance with the PMCL is determined on a systemwide basis by calculating a running annual average of all samples at all sampling points, the average and range of detection expressed in the same units as the PMCL. The range of detection for TTHM and HAA5 shall include individual sample results for the IDSE conducted under 12VAC5-590-370 B 3 e (2) for the calendar year that the IDSE samples were taken.

(5) For turbidity, the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits specified in 12VAC5-590-420 for the filtration technology being used. The report should include an explanation of the reasons for measuring turbidity;

(6) For lead and copper, the 90th percentile value of the most recent round of sampling and the number of sampling sites exceeding the action level;

~~(7) For total coliform:~~

~~(a) The highest monthly number of positive samples for waterworks collecting fewer than 40 samples per month;~~

~~(b) The highest monthly percentage of positive samples for waterworks collecting at least 40 samples per month;~~

~~(8) For fecal coliform, the total number of positive samples;~~

(7) For E. coli, the total number of positive samples;

~~(9)~~ (8) The likely source or sources of detected contaminants. Specific information regarding contaminants may be available in sanitary surveys and source water assessments, and should be used when available to the owner. If the owner lacks specific information on the likely source, the report shall include one or more of the typical sources for that contaminant listed in Appendix O that are most applicable to the system.

e. If a community waterworks owner distributes water to his customers from multiple hydraulically independent distribution systems that are fed by different raw water sources:

(1) The table shall contain a separate column for each service area and the report shall identify each separate distribution system; or

(2) The owner shall produce a separate report tailored to include data for each service area.

f. The table or tables shall clearly identify any data indicating violations of PMCLs, MRDLs, or treatment techniques and the report shall contain a clear and readily understandable explanation of the violation including:

(1) The length of the violation;

(2) The potential adverse health effects using the relevant language of Appendix O; and

(3) Actions taken by the waterworks owner to address the violation.

g. For detected unregulated contaminants subject to monitoring as specified in 12VAC5-590-370 and listed in Tables 2.6 and 2.7, for which monitoring is required, the table or tables shall contain the average and range at which the contaminant was detected. The report may include a brief explanation of the reasons for monitoring for unregulated contaminants.

4. Information on Cryptosporidium, radon, and other contaminants:

a. If the owner has performed any monitoring for Cryptosporidium, ~~including monitoring performed to satisfy the requirements of the Informational Collection Rule (40 CFR 141.143 (7-1-97 Edition)),~~ which indicates that Cryptosporidium may be present in the source water or the finished water, the report shall include:

(1) A summary of the results of the monitoring; and

(2) An explanation of the significance of the results.

b. If the owner has performed any monitoring for radon which indicates that radon may be present in the finished water, the report shall include:

(1) The results of the monitoring; and

(2) An explanation of the significance of the results.

c. If the owner has performed additional monitoring that indicates the presence of other contaminants in the finished water, the report should include any results that may indicate a health concern, as determined by the commissioner. Detections above a proposed MCL or health advisory level may indicate possible health concerns. For such contaminants, the report should include:

(1) The results of the monitoring; and

(2) An explanation of the significance of the results noting the existence of a health advisory or a proposed regulation.

5. Compliance with other regulations.

a. In addition to the requirements of subdivision 3 f of this subsection the report shall note any violation that occurred during the year covered by the report of a requirement listed below.

(1) Monitoring and reporting of compliance data;

(2) Filtration and disinfection prescribed by 12VAC5-590-420. For owners who have failed to install adequate filtration or disinfection equipment or processes, or have had a failure of such equipment or processes which constitutes a violation, the report shall include the following language as part of the explanation of potential adverse health effects: Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches;

(3) Lead and copper control requirements prescribed by 12VAC5-590-370. For owners who fail to take one or more of the prescribed actions, the report shall include the applicable language of Appendix O for lead, copper, or both;

(4) Treatment techniques for Acrylamide and Epichlorohydrin prescribed by 12VAC5-590-420 G. For owners who violate the requirements of that section, the report shall include the relevant language from Appendix O;

(5) Recordkeeping of compliance data;

(6) Special monitoring requirements for unregulated contaminants prescribed by 12VAC5-590-370 B 4 and for sodium;

(7) Violation of the terms of a variance, an exemption, or an administrative or judicial order.

b. The report shall contain:

(1) A clear and readily understandable explanation of the violation;

(2) Any potential adverse health effects; and

(3) The steps the owner has taken to correct the violation.

c. For community groundwater systems, the following shall be included:

(1) A significant deficiency that is uncorrected at the time of the report, or;

(2) An E. ~~coli-positive~~ coli-positive groundwater source sample that is not invalidated at the time of the report.

d. The owner of a community groundwater system shall report annually the information in subdivision 5 c of this subsection until the ODW determines that the significant deficiency or the E. ~~coli positive~~ coli-positive source water sample has been satisfactorily addressed. The report shall include the following information:

(1) The nature of the significant deficiency or the source of the E. coli contamination and the date the significant deficiency was identified by the ODW or the date or dates of the E. ~~coli positive~~ coli-positive source samples.

(2) If the E. coli contamination has been addressed in accordance with 12VAC5-590-421 and the date of such action.

(3) The ODW approved plan and schedule for correcting the significant deficiency or E. coli contamination including interim measures, progress to date, and which interim measures have been completed.

(4) In communities with a large portion of non-English speaking consumers, the notice shall contain information in the appropriate language or languages regarding the importance of the notice or contain a telephone number or address where the consumers may contact the owner to obtain a translated copy of the notice or assistance with the appropriate language.

(5) For E. coli contamination, the potential health effects language shall be included.

e. If directed by the ODW, the owner of a community groundwater system with significant deficiencies that have been corrected at the time of the report shall inform his consumers of the significant deficiencies, how the deficiencies were corrected, and the date or dates of correction under subdivisions 5 d (1) through (4) of this subsection.

6. Variances and exemptions. If a system is operating under the terms of a variance or an exemption issued by the commissioner under 12VAC5-590-140 and 12VAC5-590-150, the report shall contain:

a. An explanation of the reasons for the variance or exemption;

b. The date on which the variance or exemption was issued;

c. A brief status report on the steps the owner is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption; and

d. A notice of any opportunity for public input in the review or renewal of the variance or exemption.

7. Additional information.

a. The report shall contain a brief explanation regarding contaminants, which may reasonably be expected to be found in drinking water including bottled water. This explanation shall include the exact language of subdivisions ~~8~~ 7 a (1), 7 a (2) and 7 a (3) of this subsection or the owner shall use his own comparable language following approval by the commissioner. The report also shall include the exact language of subdivision ~~8~~ 7 a (4) of this subsection.

(1) The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

(2) Contaminants that may be present in source water include: (i) microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; (ii) inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (iii) pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; (iv) organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and (v) radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

(3) In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

(4) Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

b. The report shall include the telephone number of the owner, operator, or designee of the community waterworks as a source of additional information concerning the report.

c. In communities with a large proportion of non-English speaking residents, as determined by the commissioner, the report shall contain information in the appropriate language or languages regarding the importance of the report or contain a telephone number or address where such residents may contact the system to obtain a translated copy of the report or assistance in the appropriate language.

d. The report shall include the following information about opportunities for public participation in decisions that may affect the quality of the water. The waterworks owner should consider including the following additional relevant information:

(1) The time and place of regularly scheduled board meetings of the governing body which has authority over the waterworks.

(2) If regularly scheduled board meetings are not held, the name and telephone number of a waterworks representative who has operational or managerial authority over the waterworks.

e. The owner may include such additional information as he deems necessary for public education consistent with, and not detracting from, the purpose of the report.

D. Additional health information.

1. All reports shall prominently display the following language: Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

2. Any waterworks owner who detects arsenic at levels above 0.005 mg/L, but equal to or below the PMCL of 0.010 mg/L, shall include in his report the following informational statement about arsenic: While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

In lieu of the statement required in this subdivision, the waterworks owner may include his own educational statement after receiving approval from the commissioner.

3. A waterworks owner who detects arsenic levels above 0.010 mg/L shall include the health effects language contained in Appendix O.

4. An owner who detects nitrate at levels above 5 mg/L, but below the PMCL, shall include in his report the following informational statement about the impacts of nitrate on children: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

In lieu of the statement required in this subdivision, the waterworks owner may include his own educational statement after receiving approval from the commissioner.

5. All reports shall prominently display the following language: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. ~~[NAME OF UTILITY]~~ (Name of Utility) is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791).

In lieu of the statement required in this subdivision, the owner may include his own educational statement after receiving approval from the commissioner.

6. Community waterworks owners who detect TTHM above 0.080 mg/L, but below the PMCL, as an annual average shall include health effects language prescribed by paragraph ~~81~~ 82 of Appendix O.

E. Community waterworks owners required to complete a Level 1 or a Level 2 assessment that is not due to an E. coli PMCL violation shall include in the report the text specified in subdivisions E 1, E 2, and E 3 of this section as appropriate, filling in the blanks accordingly, and shall include in the report the text specified in subdivision E 4 of this section, if appropriate.

1. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that are found.

2. During the past year, we were required to conduct (insert the number of Level 1 assessments) Level 1 assessments. (insert the number of Level 1 assessments) Level 1 assessments were completed. In addition, we were required to take (insert the number of corrective actions) corrective actions and we completed (insert the number of corrective actions) of these actions.

3. During the past year (insert the number of Level 2 assessments) Level 2 assessments were required to be completed for our waterworks. (insert the number of Level 2 assessments) Level 2 assessments were completed. In addition, we were required to take (insert the number of corrective actions) corrective actions and we completed (insert the number of corrective actions) of these actions.

4. Any owner who failed to complete all of the required assessments or correct all identified sanitary defects shall also include one or both of the following statements, as appropriate:

a. During the past year, we failed to conduct all of the required assessments.

b. During the past year, we failed to correct all identified sanitary defects that were found during the assessments.

F. Community waterworks owners required to conduct Level 2 assessments due to an E. coli PMCL violation shall include in the report the text specified in subdivisions F 1 and F 2 of this section, filling in the blanks accordingly, and shall include in the report the text specified in subdivision F 3 of this section, if appropriate.

1. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found E. coli, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that are found.

2. We were required to complete a Level 2 assessment because we found E. coli in our waterworks. In addition, we were required to take (insert number of corrective actions) corrective actions and we completed (insert number of corrective actions) of these actions.

3. Any owner who has failed to complete the required assessment or correct all identified sanitary defects shall

also include one or both of the following statements, as appropriate:

a. We failed to conduct the required assessment.

b. We failed to correct all sanitary defects that were identified during the assessment that we conducted.

4. If a waterworks detects E. coli and has violated the E. coli PMCL, in addition to completing the table as specified in subdivision C 3 d of this section, the owner shall include one or more of the following statements to describe any noncompliance, as applicable:

a. We had an E. coli-positive repeat sample following a total coliform-positive routine sample.

b. We had a total coliform-positive repeat sample following an E. coli-positive routine sample.

c. We failed to take all the required repeat samples following an E. coli-positive routine sample.

d. We failed to test for E. coli when any repeat sample tested positive for total coliform.

5. If a waterworks detects E. coli and has not violated the E. coli PMCL, in addition to completing the table as specified in subdivision C 3 d of this section, the owner may include a statement that explains that although they have detected E. coli, they are not in violation of the E. coli PMCL.

~~E.~~ G. Report delivery and recordkeeping.

1. Each community waterworks owner shall mail or otherwise directly deliver one copy of the report to each customer, except as follows:

a. Owners of community waterworks serving fewer than 10,000 persons shall have the option to either mail (or otherwise directly deliver) a copy of the report to each customer or publish the report in a local newspaper or newspapers of general circulation serving the area in which the waterworks is located by July 1 of each year; and

b. If the owner chooses to publish the report, the owner shall inform customers, either in the newspaper in which the report is to be published or by other means approved by the commissioner, that a copy of the report will not be mailed to them and that a copy of the report will be made available to the public upon request.

2. Community waterworks owners shall make a good faith effort to deliver the report to the consumers who are served by the waterworks but are not bill paying customers, such as renters or workers. This good faith effort shall include at least one, and preferably two or more, of the following methods appropriate to the particular waterworks:

a. Posting the reports on the Internet;

b. Mailing to postal patrons in metropolitan areas;

c. Advertising the availability of the report in the news media;

d. Publication in a local newspaper;

e. Posting in public places such as libraries, community centers, and public buildings;

f. Delivery of multiple copies for distribution by single-biller customers such as apartment buildings or large private employers;

g. Delivery to community organizations; or

h. Other methods as approved by the commissioner.

3. No later than July 1 of each year community waterworks owners shall deliver a copy of the report to the district engineer, followed within three months by a certification that the report has been distributed to customers and that the information in the report is correct and consistent with the compliance monitoring data previously submitted to the commissioner.

4. No later than July 1 of each year community waterworks owners shall deliver the report to any other agency or clearinghouse specified by the commissioner.

5. Community waterworks owners shall make the report available to the public upon request.

6. The owner of each community waterworks serving 100,000 or more persons shall post the current year's report to a publicly accessible site on the Internet.

7. Community waterworks owners shall retain copies of the report for no less than three years.

12VAC5-590-550. Recordkeeping.

All owners shall retain at their waterworks or at a convenient location near their waterworks the following records for the minimum time periods specified:

A. Records of microbiological analyses and turbidity analyses, including records of any repeat samples taken and meeting the criteria for an extension of the 24-hour period for collecting repeat samples as required under 12VAC5-590-380 -- Five years.

B. Chemical Analyses -- 10 years.

C. Individual filter monitoring required under 12VAC5-590-530 ~~C~~ E 1 b (2) -- Three years.

D. Results of Disinfection Profile including raw data and analysis -- Indefinitely.

E. Disinfection Benchmarking including raw data and analysis -- Indefinitely.

F. The following information shall be provided for subsections A and B of this section:

1. Date, place, and time of sampling as well as the name of the person who collected the sample;

2. Identification of sample (e.g., routine, check sample, raw water, other);

3. Date of analysis;

4. Laboratory and/or person responsible for performing analysis;

5. Analytical method/technique used; and

6. Results of the analysis.

G. Original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, commissioner determinations, and any other information required by 12VAC5-590-405 A 1 and 2, B, C, and D; and 12VAC5-590-375 B, C, and D pertaining to lead and copper. Each waterworks owner shall retain the records required by this section for no fewer than 12 years.

H. Owners shall keep results from the initial round of source water monitoring under 12VAC5-590-420 B 3 a (1) and the second round of source water monitoring under 12VAC5-590-420 B 3 a (2) until three years after bin classification under 12VAC5-590-420 B 3 c (1) for the particular round of monitoring.

I. Owners shall keep any notification to the commissioner that they will not conduct source water monitoring due to meeting the criteria of 12VAC5-590-420 B 3 a (4) for three years.

J. Owners shall keep the results of treatment monitoring associated with microbial toolbox options under 12VAC5-590-420 B 3 d (3) through (7) and with uncovered finished water reservoirs under 12VAC5-590-420 L, as applicable, for three years.

K. Action taken to correct violations of these regulations -- three years after last action with respect to violation involved.

L. Owners shall retain completed assessment forms for all Level 1 and Level 2 assessments conducted in accordance with 12VAC5-590-392 C, regardless of who conducts the assessment, and documentation of corrective actions completed as a result of those assessments, or other available summary documentation of the sanitary defects and correction actions taken under 12VAC5-590-392 D for a period not less than five years after completion of the assessment or corrective action, whichever is later.

~~L.~~ M. Copies of reports, summaries, or communications relating to any sanitary surveys performed -- 10 years following inspection.

~~M.~~ N. Variance or exemptions granted (and records related thereto) -- five years following expiration of variance or exemption.

~~N.~~ O. Cross connection control program records -- 10 years.

~~O.~~ P. Owners of waterworks that recycle flow, as stipulated in 12VAC5-590-420 K, shall collect and retain on file recycle flow information for review and evaluation by the district engineer beginning June 8, 2004. Information shall include, as a minimum:

1. Copy of the recycle notification submitted to the district engineer under 12VAC5-590-530 ~~I~~ K.

2. List of all recycle flows and the frequency with which they are returned.

3. Average and maximum backwash flow rate through the filters and the average and maximum duration of the filter backwash process, in minutes.

4. Typical filter run length and a written summary of how the filter run length is determined.

5. The type of treatment provided for the recycle flow.

6. Data on the physical dimensions of the equalization and/or treatment units, typical and maximum hydraulic loading rates, type of treatment chemicals used, average dose, frequency of use, and frequency at which solids are removed, if applicable.

~~P.~~ Q. Copies of monitoring plans developed pursuant to these regulations 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~~ subsection A or B of this section, except as specified elsewhere in ~~these regulations~~ this chapter.

~~Q.~~ R. All owners shall retain the following additional records:

1. Plant operational records.

2. Water well completion reports.

3. As-built engineering plans and specifications of facilities.

4. Shop drawings of major equipment.

5. Records of equipment repair or replacement.

6. Updated map of water distribution system.

7. All accident reports.

~~R.~~ S. Additional recordkeeping requirements for groundwater systems.

1. Records of corrective actions – 10 years.

2. Records of public notification as required by 12VAC5-590-540 – Three years.

3. Records of invalidation of groundwater source samples – Five years.

4. For consecutive waterworks, records of notification to the wholesale waterworks of ~~coliform-positive~~ coliform-positive samples – Five years.

5. For waterworks required to conduct compliance monitoring:

a. Records of the ODW specified minimum disinfectant residual – 10 years.

b. Records of the lowest daily residual disinfectant concentration – Five years.

c. Records of the dates and duration of any failure to maintain the ODW specified minimum residual disinfectant concentration for a period of more than four hours – Five years.

d. Records of any ODW specified compliance parameters for alternative treatment and records of the date and duration of any failure to meet the alternative treatment operating requirements for more than four hours – Five years.

APPENDIX J. ~~BACTERIOLOGICAL SAMPLE SITING REPORT.~~ (Repealed.)

~~BACTERIOLOGICAL SAMPLE SITING REPORT~~

~~Name of Water System:~~

~~PWS ID:~~

~~Address:~~

~~Purpose:~~ ~~The purpose of this sample siting plan is to identify specific bacteriological sample locations which are representative of the water quality throughout the distribution system.~~

~~Sample Siting Plan:~~

~~1) The _____ waterworks is currently required to collect _____ water sample(s) for coliform analysis each month(quarter). Three different sampling locations are identified for each required sample for a total of _____ locations.~~

~~2) The _____ sample locations are identified below and are~~

~~shown of the attached system piping map.~~

~~No 1 = > _____~~

~~No 2 = > _____~~

~~No 3 = > _____~~

~~No 4 = > _____~~

~~No 5 = > _____~~

~~No 6 = > _____~~

~~No 7 = > _____~~

~~No 8 = > _____~~

~~No 9 = > _____~~

~~No 10 = > _____~~

~~No 11 = > _____~~

~~No 12 = > _____~~

~~3) Routine bacteriological samples will be collected from each of the above locations on a rotating basis.~~

~~4) These sample locations are chosen to allow for the collection of required upstream and downstream repeat sample within 5 service connections.~~

~~Owner Name:~~

~~Signature:~~

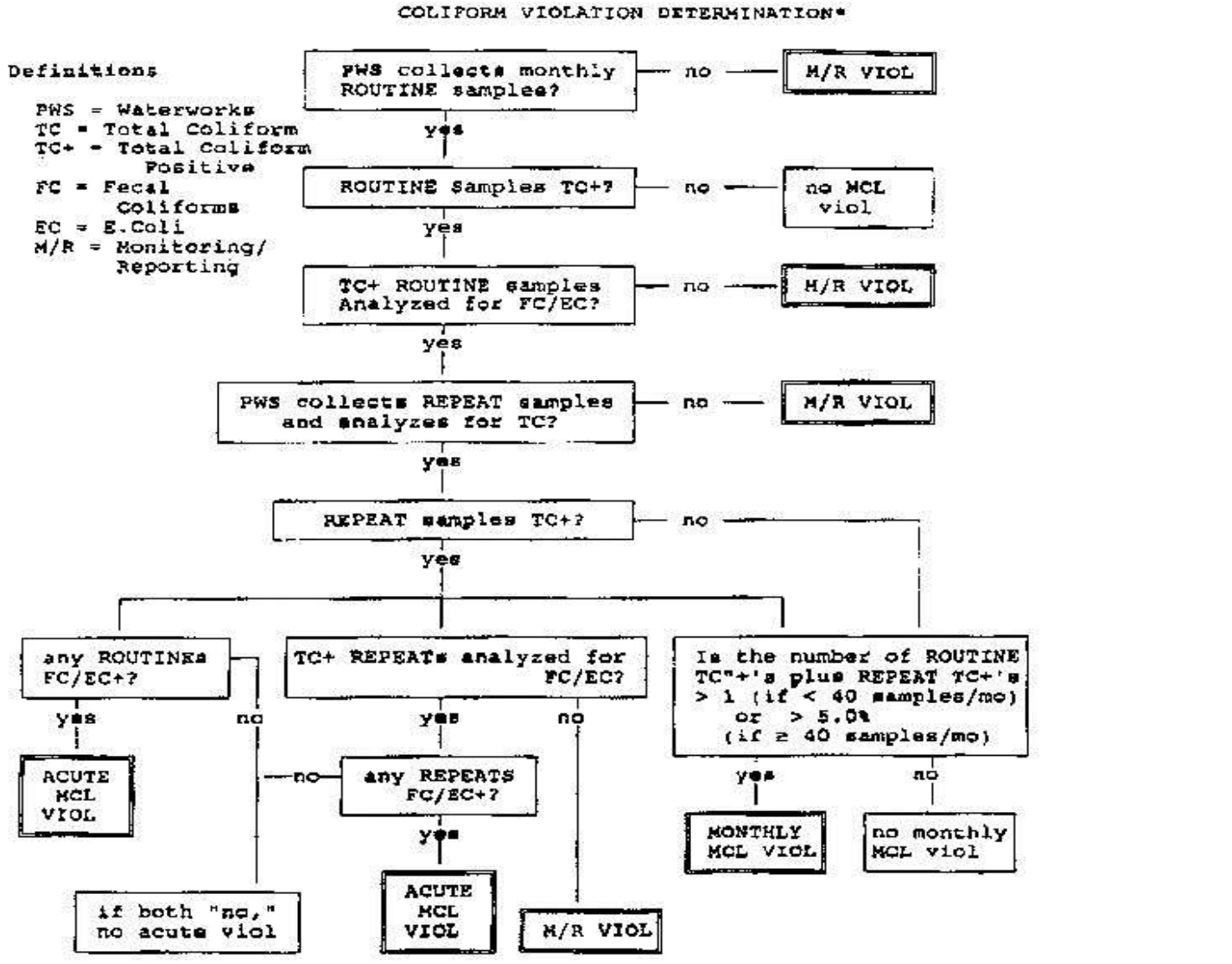
~~Title:~~

~~Date:~~

~~APPROVAL BLOCK FOR~~
~~DIVISION OF WATER SUPPLY ENGINEERING~~

APPENDIX K. ~~COLIFORM VIOLATION DETERMINATION.~~ (Repealed.)

Editor's Note - The flow chart for coliform violation determination shown below this note is being stricken in this final action.



*Note: This table is for information only and is not intended to be a substitute for the substantive requirements of the Waterworks Regulations.

APPENDIX O.
REGULATED CONTAMINANTS FOR CONSUMER CONFIDENCE REPORTS AND PUBLIC NOTIFICATION

Key

AL = Action Level
~~MCL~~ PMCL = Primary Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
MFL = million fibers per liter
mrem/year = milirems per year (a measure of radiation absorbed by the body)
MRDL = Maximum Residual Disinfectant Level
MRDLG = Maximum Residual Disinfectant Level Goal
NTU = Nephelometric Turbidity Units
pCi/l = picocuries per liter (a measure of radioactivity)
ppb = parts per billion, or micrograms per liter (µg/L)
ppm = parts per million, or milligrams per liter (mg/L)
ppq = parts per quadrillion, or picograms per liter
ppt = parts per trillion, or nanograms per liter
TT = Treatment Technique

Contaminant (units)	Traditional ~~MCL~~ PMCL in mg/l	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Microbiological Contaminants						
(1) Total coliform bacteria	~~MCL: (waterworks that collect 40 or more samples per month) 5% of monthly samples are positive; (waterworks that collect fewer than 40 samples per month)[1] positive monthly sample~~ TT			~~0~~ n/a	Naturally present in the environment	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, ~~bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems~~ waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.
(2) ~~Fecal coliform and~~ E. coli	~~MCL: a routine sample and a repeat sample are total coliform positive, and one is also fecal coliform of E. coli positive~~ PMCL: In compliance unless (i) the waterworks has an E. coli-positive repeat sample following a total coliform-positive routine sample; (ii) the waterworks has a total coliform-positive repeat sample following an E. coli-positive routine sample; (iii) the waterworks owner fails to take all required repeat samples following an E. coli-positive routine sample; or (iv) the waterworks owner fails to test for E. coli when any repeat sample tests positive for total coliform.			0	Human and animal fecal waste	~~Fecal coliforms and~~ E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. ~~Microbes~~ Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a ~~special~~ greater health risk for infants, young children, ~~some of~~ the elderly, and people with severely-compromised immune systems.
(3) E. coli	TT			n/a	Human and animal fecal waste	E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for

						infants, young children, the elderly, and people with severely compromised immune systems.
~~(3)~~ (4) Source water fecal indicator (E. coli)	TT	-	TT	0 for E. coli	Human and animal fecal waste	Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune system.
~~(4)~~ (5) Groundwater rule TT violations other than ~~(3)~~ (4) above[1]	TT	-	-	TT	-	Inadequately treated or inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.
~~(5)~~ (6) Turbidity	TT	-	TT	n/a	Soil runoff	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
~~(6)~~ (7) Giardia lamblia, viruses, Hetrotrophic plate count, Legionella, Cryptosporidium[1]	TT[3]	-	n/a	0	n/a	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
Radioactive Contaminants						
~~(7)~~ (8) Beta/photon emitters (mrem/yr)	4 mrem/yr	-	4	0	Decay of natural and man-made deposits	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.

~~(8)~~ (9) Alpha emitters (pCi/L)	15 pCi/L	-	15	0	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
~~(9)~~ (10) Combined radium (pCi/L)	5 pCi/L	-	5	0	Erosion of natural deposits	Some people who drink water containing radium-226 or radium-228 in excess of the MCL over many years may have an increased risk of getting cancer.
~~(10)~~ (11) Uranium (ppb)	30 µg/L	-	30	0	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Inorganic Contaminants						
~~(11)~~ (12) Antimony (ppb)	0.006	1000	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
~~(12)~~ (13) Arsenic (ppb)	0.010	1000	10.	0^2	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
~~(13)~~ (14) Asbestos (MFL)	7 MFL	-	7	7	Decay of asbestos cement water mains; Erosion of natural deposits	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
~~(14)~~ (15) Barium (ppm)	2	-	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
~~(15)~~ (16) Beryllium (ppb)	0.004	1000	4	4	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.
~~(16)~~ (17) Cadmium (ppb)	0.005	1000	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Run-off from waste batteries and paints	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.

~~(17)~~ (18) Chromium (ppb)	0.1	1000	100	100	Discharge from steel and pulp mills; Erosion of natural deposits	Some people who drink water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
~~(18)~~ (19) Copper (ppm)	AL=1.3	-	AL=1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
~~(19)~~ (20) Cyanide (ppb)	0.2	1000	200	200	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
~~(20)~~ (21) Fluoride (ppm)	4	-	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
~~(21)~~ (22) Lead (ppb)	AL=0.015	1000	AL=15	0	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
~~(22)~~ (23) Mercury [inorganic] (ppb)	.002	1000	2	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.

~~(23)~~ (24) Nitrate (ppm)	10	-	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
~~(24)~~ (25) Nitrite (ppm)	1	-	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
~~(25)~~ (26) Total Nitrate and Nitrite	10	-	n/a	10	n/a	Infants below the age of six months who drink water containing nitrate and nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
~~(26)~~ (27) Selenium (ppb)	0.05	1000	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
~~(27)~~ (28) Thallium (ppb)	0.002	1000	2	0.5	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
Synthetic Organic Contaminants including Pesticides and Herbicides						
~~(28)~~ (29) 2,4-D (ppb)	0.07	1000	70	70	Runoff from herbicides used on row crops	Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
~~(29)~~ (30) 2,4,5-TP [Silvex] (ppb)	0.05	1000	50	50	Residue of banned herbicide	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
~~(30)~~ (31) Acrylamide	TT	-	TT	0	Added to water during sewage/wastewater treatment	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.

~~(31)~~ (32) Alachlor (ppb)	0.002	1000	2	0	Runoff from herbicide used on row crops	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
~~(32)~~ (33) Atrazine (ppb)	0.003	1000	3	3	Runoff from herbicide used on row crops	Some people who drink water containing the atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
~~(33)~~ (34) Benzo(a)pyrene[PAH]	0.0002	1,000,000	200	0	Leaching from linings of water storage tanks and distribution lines	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
~~(34)~~ (35) Carbofuran (ppb)	0.04	1000	40	40	Leaching of soil fumigant used on rice and alfalfa	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.
~~(35)~~ (36) Chlordane (ppb)	0.002	1000	2	0	Residue of banned termiticide	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.
~~(36)~~ (37) Dalapon (ppb)	0.2	1000	200	200	Runoff from herbicide used on rights of way	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
~~(37)~~ (38) Di(2-ethylhexyl) adipate (ppb)	0.4	1000	400	400	Discharge from chemical factories	Some people who drink water containing di(2-ethyhexyl)adipate well in excess of the MCL over many years could experience toxic effects, such as weight loss, liver enlargement or possible reproductive difficulties.
~~(38)~~ (39) Di(2-ethylhexyl)phthalate (ppb)	0.006	1000	6	0	Discharge from rubber and chemical factories	Some people who drink water containing di(2-ethylhexyl)phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.

~~(39)~~ (40) Dibromochloropropane (ppt)	0.0002	1,000,000	200	0	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	Some people who drink water containing DBCP well in excess of the MCL over many years could experience reproductive problems and may have an increased risk of getting cancer.
~~(40)~~ (41) Dinoseb (ppb)	0.007	1000	7	7	Runoff from herbicide used on soybeans and vegetables	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.
~~(41)~~ (42) Diquat (ppb)	0.02	1000	20	20	Runoff from herbicide use	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
~~(42)~~ (43) Dioxin [2,3,7,8-TCDD] (ppq)	0.00000003	1,000,000,000	30	0	Emissions from waste incineration and other combustion; Discharge from chemical factories	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
~~(43)~~ (44) Endothall (ppb)	0.1	1000	100	100	Runoff from herbicide use	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
~~(44)~~ (45) Endrin (ppb)	0.002	1000	2	2	Runoff of banned insecticide	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
~~(45)~~ (46) Epichlorohydrin	TT	-	TT	0	Discharge from industrial chemical factories; An impurity of some water treatment chemicals	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.
~~(46)~~ (47) Ethylene dibromide (ppt)	0.00005	1,000,000	50	0	Discharge from petroleum refineries	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.
~~(47)~~ (48) Glyphosate (ppb)	0.7	1000	700	700	Runoff from herbicide use	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.

~~(48)~~ (49) Heptachlor (ppt)	0.0004	1,000,000	400	0	Residue of banned pesticide	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
~~(49)~~ (50) Heptachlor epoxide (ppt)	0.0002	1,000,000	200	0	Breakdown of heptachlor	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.
~~(50)~~ (51) Hexachlorobenzene (ppb)	0.001	1000	1	0	Discharge from metal refineries and agricultural chemical factories	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys or adverse reproductive effects, and may have an increased risk of getting cancer.
~~(51)~~ (52) Hexachlorocyclopentadiene (ppb)	0.05	1000	50	50	Discharge from chemical factories	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their stomach or kidneys.
~~(52)~~ (53) Lindane (ppt)	0.0002	1,000,000	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
~~(53)~~ (54) Methoxychlor (ppb)	0.04	1000	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.
~~(54)~~ (55) Oxamyl [Vydate] (ppb)	0.2	1000	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes	Some people who drink water containing ethylene oxamyl in excess of the MCL over many years could experience slight nervous system effects.
~~(55)~~ (56) PCBs [Polychlorinated biphenyls] (ppt)	0.0005	1,000,000	500	0	Runoff from landfills; Discharge of waste chemicals	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
~~(56)~~ (57) Pentachlorophenol (ppb)	0.001	1000	1	0	Discharge from wood preserving factories	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.

~~(57)~~ (58) Picloram (ppb)	0.5	1000	500	500	Herbicide runoff	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
~~(58)~~ (59) Simazine (ppb)	0.004	1000	4	4	Herbicide runoff	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
~~(59)~~ (60) Toxaphene (ppb)	0.003	1000	3	0	Runoff/leaching from insecticide used on cotton and cattle	Some people who drink water containing toxaphene in excess of the MCL over many years could experience problems with their thyroid, kidneys, or liver and may have an increased risk of getting cancer.
Volatile Organic Contaminants						
~~(60)~~ (61) Benzene (ppb)	0.005	1000	5	0	Discharge from factories; Leaching from gas storage tanks and landfills	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
~~(61)~~ (62) Carbon tetrachloride (ppb)	0.005	1000	5	0	Discharge from chemical plants and other industrial activities	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
~~(62)~~ (63) Chlorobenzene (ppb)	0.1	1000	100	100	Discharge from chemical and agricultural chemical factories	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
~~(63)~~ (64) o-Dichlorobenzene (ppb)	0.6	1000	600	600	Discharge from industrial chemical factories	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or spleen, or changes in their blood.
~~(64)~~ (65) p-Dichlorobenzene (ppb)	0.075	1000	75	75	Discharge from industrial chemical factories	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or circulatory systems.
~~(65)~~ (66) 1,2-Dichloroethane (ppb)	0.005	1000	5	0	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.

~~(66)~~ (67) 1,1-Dichloroethylene (ppb)	0.007	1000	7	7	Discharge from industrial chemical factories	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
~~(67)~~ (68) cis-1,2-Dichloroethylene (ppb)	0.07	1000	70	70	Discharge from industrial chemical factories	Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
~~(68)~~ (69) trans-1,2-Dichloroethylene (ppb)	0.1	1000	100	100	Discharge from industrial chemical factories	Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
~~(69)~~ (70) Dichloromethane (ppb)	0.005	1000	5	0	Discharge from pharmaceutical and chemical factories	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
~~(70)~~ (71) 1,2-Dichloropropane (ppb)	0.005	1000	5	0	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
~~(71)~~ (72) Ethylbenzene (ppb)	0.7	1000	700	700	Discharge from petroleum refineries	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
~~(72)~~ (73) Styrene (ppb)	0.1	1000	100	100	Discharge from rubber and plastic factories; Leaching from landfills	Some people who drink water containing styrene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory system.
~~(73)~~ (74) Tetrachloroethylene (ppb)	0.005	1000	5	0	Discharge from factories and dry cleaners	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
~~(74)~~ (75) 1,2,4-Trichlorobenzene (ppb)	0.07	1000	70	70	Discharge from textile-finishing factories	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.

~~(75)~~ (76) 1,1,1,-Trichloroethane (ppb)	0.2	1000	200	200	Discharge from metal degreasing sites and other factories	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
~~(76)~~ (77) 1,1,2-Trichloroethane (ppb)	0.005	1000	5	3	Discharge from industrial chemical factories	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
~~(77)~~ (78) Trichloroethylene (ppb)	0.005	1000	5	0	Discharge from metal degreasing sites and other factories	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
~~(78)~~ (79) Toluene (ppm)	1	-	1	1	Discharge from petroleum factories	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
~~(79)~~ (80) Vinyl Chloride (ppb)	0.002	1000	2	0	Leaching from PVC piping; Discharge from plastic factories	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
~~(80)~~ (81) Xylenes (ppm)	10	-	10	10	Discharge from petroleum factories; Discharge from chemical factories	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.
Disinfection By-Products, Precursors, and Residuals						
~~(81)~~ (82) TTHMs [total trihalomethanes] (ppb)	0.080	1000	80	n/a	By-product of drinking water disinfection	Some people who drink water containing trihalomethanes in excess of the MCL over many years could experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
~~(82)~~ (83) Haloacetic acids (HAA) (ppb)	0.060	1000	60	n/a	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
~~(83)~~ (84) Bromate (ppb)	0.010	1000	10	0	By-product of drinking water disinfection	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

~~(84)~~ (85) Chloramines (ppm)	MRDL=4.0	-	MRDL=4.0	MRDLG=4	Water additive used to control microbes	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
~~(85)~~ (86) Chlorine (ppm)	MRDL=4.0	-	MRDL=4.0	MRDLG=4	Water additive used to control microbes	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
~~(86)~~ (87) Chlorine dioxide (ppb)[2]	MRDL=0.8	1000	MRDL=800	MRDLG=800	Water additive used to control microbes	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.
~~(86a)~~ (87a) Chlorine dioxide, where any two consecutive daily samples taken at the entrance to the distribution system are above the MRDL.[1]	MRDL=0.8	-	-	MRDLG=0.8	-	The chlorine dioxide violations reported today are the result of exceedances at the treatment facility only, not within the distribution system which delivers water to consumers. Continued compliance with chlorine dioxide levels within the distribution system minimizes the potential risk of these violations to consumers.
~~(86b)~~ (87b) Chlorine dioxide, where one or more distribution system samples are above the MRDL.[1]	MRDL=0.8	-	-	MRDLG=0.8	-	The chlorine dioxide violations reported today include exceedances of the EPA standard within the distribution system which delivers water to consumers. Violations of the chlorine dioxide standard within the distribution system may harm human health based on short-term exposures. Certain groups, including fetuses, infants, and young children, may be especially susceptible to nervous system effects from excessive chlorine dioxide exposure.

~~(87)~~ (88) Chlorite (ppm)	1.0	-	1.0	0.8	By-product of drinking water disinfection	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
~~(88)~~ (89) Total organic carbon (ppm)	TT	-	TT	n/a	Naturally present in the environment	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous systems effects, and may lead to an increased risk of getting cancer.

[1]This information is for public notification purposes only.

[2]This information is for Consumer Confidence Report purposes only.

[3]Violations of the treatment technique requirements for filtration and disinfection that involve turbidity exceedances may use the health effects language for turbidity instead.

NOTICE: The following forms used in administering the regulation have been filed by the agency. The forms are not being published; however, online users of this issue of the Virginia Register of Regulations may click on the name of a form with a hyperlink to access it. The forms are also available from the agency contact or may be viewed at the Office of Registrar of Regulations, General Assembly Building, 2nd Floor, Richmond, VA 23219.

FORMS (12VAC5-590)

~~Uniform Water Well Completion Report, Form GW-2 (rev. 7/2015)~~

Uniform Water Well Completion Report, Form GW-2 (rev. 7/2016 & 8/2016)

Waterworks Level 1 Assessment, Form ODW-4 (eff. 4/2016)

Waterworks Level 2 Assessment, Form ODW-5 (eff. 4/2016)

VA.R. Doc. No. R16-4340; Filed July 22, 2016, 1:11 p.m.

DEPARTMENT OF MEDICAL ASSISTANCE SERVICES

Fast-Track Regulation

Titles of Regulations: **12VAC30-70. Methods and Standards for Establishing Payment Rates - Inpatient Hospital Services (adding 12VAC30-70-428).**

12VAC30-80. Methods and Standards for Establishing Payment Rates; Other Types of Care (amending 12VAC30-80-20, 12VAC30-80-30).

12VAC30-90. Methods and Standards for Establishing Payment Rates for Long-Term Care (amending 12VAC30-90-19).

Statutory Authority: § 32.1-325 of the Code of Virginia; 42 USC § 1396 et seq.

Public Hearing Information: No public hearings are scheduled.

Public Comment Deadline: November 2, 2016.

Effective Date: November 17, 2016.

Agency Contact: Victoria Simmons, Regulatory Coordinator, Department of Medical Assistance Services, 600 East Broad Street, Suite 1300, Richmond, VA 23219, telephone (804) 371-6043, FAX (804) 786-1680, TTY (800) 343-0634, or email victoria.simmons@dmas.virginia.gov.

Basis: Section 32.1-325 of the Code of Virginia grants to the Board of Medical Assistance Services the authority to

administer and amend the Plan for Medical Assistance. Section 32.1-324 of the Code of Virginia authorizes the Director of the Department of Medical Assistance Services (DMAS) to administer and amend the Plan for Medical Assistance according to the board's requirements. The Medicaid authority as established by § 1902(a) of the Social Security Act (42 USC § 1396a) provides governing authority for payments for services.

These payments are authorized by Item 301 DDDD of Chapter 2 of the 2014 Acts of Assembly, Special Session I, and funding would come from intergovernmental transfers (IGTs) rather than the general fund. In the case of supplemental payments to providers affiliated with Type One hospitals, IGTs are authorized in Item 197 of Chapter 2 of the 2014 Acts of Assembly, Special Session I, and in the case of supplemental payments to physicians affiliated with Eastern Virginia Medical School, IGTs are authorized in Item 243 of Chapter 2 of the 2014 Acts of Assembly, Special Session I.

Purpose: The purpose of this action is to create supplemental payments to various Medicaid-enrolled provider types: private hospital partners of Type One hospitals (both inpatient and outpatient services), physicians affiliated with Eastern Virginia Medical School, and nonstate government-owned nursing facilities. This action is not expected to affect the health, safety, or welfare of citizens. It may help these affected facilities remain more fiscally stable than they would otherwise be.

Rationale for Using Fast-Track Rulemaking Process: The proposed regulatory changes are expected to be noncontroversial. The changes are authorized in Item 301 DDDD, and funding would come from intergovernmental transfers (IGTs) rather than the general fund. In the case of supplemental payments to providers affiliated with Type One hospitals, IGTs are authorized in Item 197, and in the case of supplemental payments to physicians affiliated with Eastern Virginia Medical School, IGTs are authorized in Item 243. A sum sufficient appropriation has been included in Item 301 DDDD for nonstate government-owned nursing facilities. In all cases, DMAS will also enter into interagency agreements with the government entities furnishing the IGTs.

Substance: DMAS could make higher payments to many providers but is limited by the general fund appropriations in the budget used to fund the nonfederal share. An alternative funding source for the nonfederal share is intergovernmental transfers (IGTs). By using IGTs as a funding source, Virginia can draw down federal funds for higher payments to government providers or government-affiliated providers. The intent of this regulatory change is to maximize Medicaid payments for targeted government providers or government-affiliated providers using IGTs to fund the difference between current provider payments and the maximum payments allowed by federal law.

12VAC30-70-428: Federal regulations establish upper payment limits (UPL) for inpatient and outpatient hospital services. There are separate UPLs for state, other government, and private hospitals. UPLs are calculated on an aggregate basis. Under the current DMAS reimbursement policy, regular payments for private hospitals are below the UPL. This amendment would create supplemental payments for qualifying private hospitals that are partners with a Type One hospital; that is, those private hospitals in which the Type One hospital has a nonmajority interest. Type One hospitals are the state teaching hospitals. Supplemental payments would be calculated as the difference between charges and regular payments subject to limits agreed upon with the Centers for Medicare and Medicaid Services (CMS). Supplemental payments to disproportionate share hospitals, however, cannot exceed a separate limit that applies to them. Total payments to all hospitals cannot exceed the private UPL for each service.

Medicaid inpatient and outpatient payments are currently about 75% of cost. The intent of the action is to provide increased payments for hospitals affiliated with the state teaching hospitals. Currently, only Culpeper Hospital qualifies as a hospital affiliated with a Type One hospital and only through September 30, 2014.

DMAS estimates $4.2 million annually in payments to providers affiliated with Type One hospitals. Funding of the state share will come from funds at the state teaching hospitals transferred to DMAS and not from general fund appropriations to DMAS.

12VAC30-80-20 and 12VAC30-80-30: This action establishes supplemental payments for physician practice plans affiliated with publicly funded medical schools in Tidewater, such as Eastern Virginia Medical School. DMAS intends to make supplemental payments equal to the average commercial rate (ACR) minus regular physician payments. DMAS has calculated an ACR of 135% of Medicare using the methodology approved by CMS.

DMAS anticipates that this will increase annual payments to physicians affiliated with publicly funded medical schools in Tidewater by $1.5 million total funds. The state share will be funded by publicly funded medical schools in Tidewater.

12VAC30-90-19: Federal regulations establish a UPL for nonstate government-owned nursing facilities in the aggregate. Under the current policy, regular payments and existing supplemental payments for the current five nonstate government-owned nursing facilities are below the UPL based on what Medicare would have paid using the current Medicare payment methodology. DMAS will calculate a supplemental per diem by fiscal year for each nursing facility using the most recently available base year adjusted for inflation or other changes to Medicare or Medicaid reimbursement between the base year and the rate year. Payments will be made quarterly by multiplying net paid days in the prior quarter by the supplemental per diem for the applicable fiscal year. DMAS estimates total annual supplemental payments of $10.3 million. The nonfederal

share will be funded by these government facilities resulting in net revenue of $5.2 million for these facilities.

DMAS recommends the adoption of these methodologies to provide supplemental payments to (i) private hospital partners of Type One hospitals (for inpatient and outpatient services), (ii) physicians affiliated with the publicly funded Tidewater medical school, and (iii) nonstate government-owned nursing facilities.

Issues: There are no disadvantages to the public in this action. The advantage of these supplemental payments to these affected institutions is that the payments may help to offset some of the budgetary reductions that the institutions are otherwise experiencing. The advantage to the Commonwealth is that these supplemental payments may facilitate the affected institutions remaining in business across the state. Since the affected provider or affiliated local government transfers funds to DMAS to finance the state share, there is no need for general fund appropriations.

The Department of Planning and Budget's Economic Impact Analysis:

Summary of the Proposed Amendments to Regulation. The Department of Medical Assistance Services (DMAS) proposes to create new supplemental payments via intergovernmental transfers (IGTs) for: 1) private hospital partners of Type One hospitals[1] (both inpatient and outpatient services), 2) physicians affiliated with Eastern Virginia Medical School, and 3) nonstate government owned nursing facilities.

Result of Analysis. The benefits likely exceed the costs for all proposed changes.

Estimated Economic Impact. Under the language in the current regulations DMAS payments to some providers are limited by the General Fund appropriations in the budget used to fund the non-federal share. An alternative funding source for the non-federal share is IGTs. By using IGTs as a funding source, Virginia can draw down federal funds for higher payments to government providers or government-affiliated providers without spending additional state dollars. The policy under the proposed amendments increases Medicaid payments for targeted government providers or government-affiliated providers using IGTs to fund the difference between current provider payments and the maximum payments allowed by federal law. This is beneficial for Virginia in that the new policy increases funding for Virginia Medicaid providers without increasing Virginia state expenditures. The increased funding comes from federal dollars.

Item 301 DDDD of the 2014 Appropriation Act directed DMAS to promulgate regulations to allow for IGTs for three categories of providers: private hospital partners of Type One hospitals, physicians affiliated with the Eastern Virginia Medical School, and local government-owned nursing homes.[2] This language is repeated in Item 301 DDDD of the 2015 Appropriation Act.

The budget language gave DMAS the authority to "implement these changes prior to completion of any regulatory process undertaken in order to effect such change." Thus, all of these changes are already in effect. Consequentially, this regulatory action is essentially a "housekeeping" measure to conform the regulatory text to both the budget language and the current practice as reflected by the state plan. Nevertheless, amending the regulatory language is beneficial in that it will improve clarity for the public concerning current rules.

The estimated supplemental payments via IGTs are:

Nonstate Government-Owned Nursing Facilities: $15,522,400 (FY 2015)

Physicians Affiliated with Eastern Virginia Medical School: $1,438,000 (FY 2015)

Type One Private Hospital Partners: $4,202,300 (FY2014)[3]

Businesses and Entities Affected. The policy under the proposed amendments affect Culpepper Hospital, physician practices affiliated with Eastern Virginia Medical School, and 5 nonstate government owned nursing facilities.

Localities Particularly Affected. The policy under the proposed amendments particularly affect Culpeper and Tidewater.

Projected Impact on Employment. The proposed amendments are unlikely to significantly affect employment.

Effects on the Use and Value of Private Property. The proposed amendment does not significantly affect the use and value of private property.

Small Businesses: Costs and Other Effects. The proposed amendments do not increase costs for small businesses.

Small Businesses: Alternative Method that Minimizes Adverse Impact. The proposed amendments will not adversely affect small businesses.

Real Estate Development Costs. The proposed amendments will not affect real estate development costs.

[1]"Type One" hospitals are those hospitals that were state-owned teaching hospitals on January 1, 1996. (12VAC30-70-221)

[2]The regulatory text uses the term "nonstate government-owned nursing facilities" since that is the standard federal language.

[3]When this regulatory action was initiated, one hospital (Culpeper Hospital) qualified as private hospital partner of a Type One hospital. Culpeper Hospital no longer qualified as of September 30, 2014. Currently no hospital qualifies.

Agency's Response to Economic Impact Analysis: The agency has reviewed the economic impact analysis and raises no issues with this analysis.

Summary:

The regulatory action creates supplemental payments for private hospital partners of Type One hospitals, both inpatient and outpatient services; physicians affiliated with

publicly funded medical schools in Tidewater; and nonstate government-owned nursing facilities.

12VAC30-70-428. Supplemental payments for private hospital partners of Type One hospitals.

A. Effective for dates of service on or after October 25, 2011, quarterly supplemental payments will be issued to qualifying private hospitals for inpatient services rendered during the quarter.

B. Qualifying criteria. In order to qualify for the supplemental payment, the hospital must be enrolled currently as a Virginia Medicaid provider and must be owned or operated by a private entity in which a Type One hospital has a nonmajority interest.

C. Reimbursement methodology.

1. Hospitals not participating in the Medicaid disproportionate share hospital (DSH) program shall receive quarterly supplemental payments for the inpatient services rendered during the quarter. Each quarterly payment distribution shall occur not more than two years after the year in which the qualifying hospital's entitlement arises. The annual supplemental payments in any fiscal year shall be the lesser of:

a. The difference between each qualifying hospital's inpatient Medicaid billed charges and Medicaid payments the hospital receives for services processed for fee-for-service Medicaid recipients during the fiscal year; or

b. $14,620 per Medicaid discharge for state plan rate year 2012. For future state plan rate years, this number shall be adjusted by inflation based on the Virginia moving average values as compiled and published by Global Insight (or its successor) under contract with the department.

2. Hospitals participating in the Medicaid DSH program shall receive quarterly supplemental payments for the inpatient services rendered during the quarter. Each quarterly payment distribution shall occur not more than two years after the year in which the qualifying hospital's entitlement arises. The annual supplemental payments in any fiscal year shall be the lesser of:

a. The difference between each qualifying hospital's inpatient Medicaid billed charges and Medicaid payments the hospital receives for services processed for fee-for-service Medicaid recipients during the fiscal year;

b. $14,620 per Medicaid discharge for state plan rate year 2012. For future state plan rate years, this number shall be adjusted by inflation based on the Virginia moving average values as compiled and published by Global Insight (or its successor) under contract with the department; or

c. The difference between the limit calculated under § 1923(g) of the Social Security Act and the hospital's DSH payments for the applicable payment period.

D. Limit. Maximum aggregate payments to all qualifying hospitals shall not exceed the available upper payment limit per state fiscal year.

12VAC30-80-20. Services that are reimbursed on a cost basis.

A. Payments for services listed in this section shall be on the basis of reasonable cost following the standards and principles applicable to the Title XVIII Program with the exception provided for in subdivision D 1 e of this section. The upper limit for reimbursement shall be no higher than payments for Medicare patients on a facility-by-facility basis in accordance with 42 CFR 447.321 and 42 CFR 447.325. In no instance, however, shall charges for beneficiaries of the program be in excess of charges for private patients receiving services from the provider. The professional component for emergency room physicians shall continue to be uncovered as a component of the payment to the facility.

B. Reasonable costs will be determined from the filing of a uniform cost report by participating providers. The cost reports are due not later than 150 days after the provider's fiscal year end. If a complete cost report is not received within 150 days after the end of the provider's fiscal year, ~~the Program~~ DMAS or its designee shall take action in accordance with its policies to assure that an overpayment is not being made. The cost report will be judged complete when DMAS has all of the following:

1. Completed cost reporting form provided by DMAS, with signed certification;

2. The provider's trial balance showing adjusting journal entries;

3. The provider's financial statements including, but not limited to, a balance sheet, a statement of income and expenses, a statement of retained earnings (or fund balance), and a statement of changes in financial position;

4. Schedules that reconcile financial statements and trial balance to expenses claimed in the cost report;

5. Depreciation schedule or summary;

6. Home office cost report, if applicable; and

7. Such other analytical information or supporting documents requested by DMAS when the cost reporting forms are sent to the provider.

C. Item 398 D of the 1987 Appropriation Act (as amended), effective April 8, 1987, eliminated reimbursement of return on equity capital to proprietary providers.

D. The services that are cost reimbursed are:

1. For dates of service prior to January 1, 2014, outpatient hospital services, including rehabilitation hospital outpatient services and excluding laboratory services.

a. Definitions. The following words and terms when used in this ~~regulation~~ section shall have the following meanings when applied to emergency services unless the context clearly indicates otherwise:

"All-inclusive" means all emergency department and ancillary service charges claimed in association with the emergency room visit, with the exception of laboratory services.

"DMAS" means the Department of Medical Assistance Services consistent with Chapter 10 (§ 32.1-323 et seq.) of Title 32.1 of the Code of Virginia.

"Emergency hospital services" means services that are necessary to prevent the death or serious impairment of the health of the recipient. The threat to the life or health of the recipient necessitates the use of the most accessible hospital available that is equipped to furnish the services.

"Recent injury" means an injury that has occurred less than 72 hours prior to the emergency department visit.

b. Scope. DMAS shall differentiate, as determined by the attending physician's diagnosis, the kinds of care routinely rendered in emergency departments and reimburse for nonemergency care rendered in emergency departments at a reduced rate.

(1) With the exception of laboratory services, DMAS shall reimburse at a reduced and all-inclusive reimbursement rate for all services rendered in emergency departments that DMAS determines were nonemergency care.

(2) Services determined by the attending physician to be emergencies shall be reimbursed under the existing methodologies and at the existing rates.

(3) Services performed by the attending physician that may be emergencies shall be manually reviewed. If such services meet certain criteria, they shall be paid under the methodology for subdivision 1 b (2) of this subsection. Services not meeting certain criteria shall be paid under the methodology of subdivision 1 b (1) of this subsection. Such criteria shall include, but not be limited to:

(a) The initial treatment following a recent obvious injury.

(b) Treatment related to an injury sustained more than 72 hours prior to the visit with the deterioration of the symptoms to the point of requiring medical treatment for stabilization.

(c) The initial treatment for medical emergencies including indications of severe chest pain, dyspnea, gastrointestinal hemorrhage, spontaneous abortion, loss of consciousness, status epilepticus, or other conditions considered life threatening.

(d) A visit in which the recipient's condition requires immediate hospital admission or the transfer to another facility for further treatment or a visit in which the recipient dies.

(e) Services provided for acute vital sign changes as specified in the provider manual.

(f) Services provided for severe pain when combined with one or more of the other guidelines.

(4) Payment shall be determined based on ICD diagnosis codes and necessary supporting documentation. As used here, the term "ICD" is defined in 12VAC30-95-5.

(5) DMAS shall review on an ongoing basis the effectiveness of this program in achieving its objectives and for its effect on recipients, physicians, and hospitals. Program components may be revised subject to achieving program intent, the accuracy and effectiveness of the ICD code designations, and the impact on recipients and providers. As used here, the term "ICD" is defined in 12VAC30-95-5.

c. Limitation of allowable cost. Effective for services on and after July 1, 2003, reimbursement of Type Two hospitals for outpatient services shall be at various percentages as noted in subdivisions 1 c (1) and 1 c (2) of this subsection of allowable cost, with cost to be determined as provided in subsections A, B, and C of this section. For hospitals with fiscal years that do not begin on July 1, outpatient costs, both operating and capital, for the fiscal year in progress on that date shall be apportioned between the time period before and the time period after that date, based on the number of calendar months in the cost reporting period, falling before and after that date.

(1) Type One hospitals.

(a) Effective July 1, 2003, through June 30, 2010, hospital outpatient operating reimbursement shall be at 94.2% of allowable cost and capital reimbursement shall be at 90% of allowable cost.

(b) Effective July 1, 2010, through September 30, 2010, hospital outpatient operating reimbursement shall be at 91.2% of allowable cost and capital reimbursement shall be at 87% of allowable cost.

(c) Effective October 1, 2010, through June 30, 2011, hospital outpatient operating reimbursement shall be at 94.2% of allowable cost and capital reimbursement shall be at 90% of allowable cost.

(d) Effective July 1, 2011, hospital outpatient operating reimbursement shall be at 90.2% of allowable cost and capital reimbursement shall be at 86% of allowable cost.

(2) Type Two hospitals.

(a) Effective July 1, 2003, through June 30, 2010, hospital outpatient operating and capital reimbursement shall be 80% of allowable cost.

(b) Effective July 1, 2010, through September 30, 2010, hospital outpatient operating and capital reimbursement shall be 77% of allowable cost.

(c) Effective October 1, 2010, through June 30, 2011, hospital outpatient operating and capital reimbursement shall be 80% of allowable cost.

(d) Effective July 1, 2011, hospital outpatient operating and capital reimbursement shall be 76% of allowable cost.

d. The last cost report with a fiscal year end on or after December 31, 2013, shall be used for reimbursement for dates of service through December 31, 2013, based on this section. Reimbursement shall be based on charges reported for dates of service prior to January 1, 2014. Settlement will be based on four months of runout from the end of the provider's fiscal year. Claims for services paid after the cost report runout period will not be settled.

e. Payment for direct medical education costs of nursing schools, paramedical programs and graduate medical education for interns and residents.

(1) Direct medical education costs of nursing schools and paramedical programs shall continue to be paid on an allowable cost basis.

(2) Effective with cost reporting periods beginning on or after July 1, 2002, direct graduate medical education (GME) costs for interns and residents shall be reimbursed on a per-resident prospective basis. See 12VAC30-70-281 for prospective payment methodology for graduate medical education for interns and residents.

2. Rehabilitation agencies or comprehensive outpatient rehabilitation.

a. Effective July 1, 2009, rehabilitation agencies or comprehensive outpatient rehabilitation facilities that are operated by community services boards or state agencies shall be reimbursed their costs. For reimbursement methodology applicable to all other rehabilitation agencies, see 12VAC30-80-200.

b. Effective October 1, 2009, rehabilitation agencies or comprehensive outpatient rehabilitation facilities operated by state agencies shall be reimbursed their costs. For reimbursement methodology applicable to all other rehabilitation agencies, see 12VAC30-80-200.

3. (Reserved.)

4. Supplemental payments for private hospital partners of Type One hospitals. Effective for dates of service on or after October 25, 2011, quarterly supplemental payments shall be issued to qualifying private hospitals for outpatient services rendered during the quarter.

a. In order to qualify for the supplemental payment, the hospital shall be enrolled currently as a Virginia Medicaid provider and shall be owned or operated by a private entity in which a Type One hospital has a nonmajority interest.

b. Reimbursement methodology.

(1) Hospitals not participating in the Medicaid disproportionate share hospital (DSH) program shall receive quarterly supplemental payments for the outpatient services rendered during the quarter. Each quarterly payment distribution shall occur not more than two years after the year in which the qualifying hospital's entitlement arises. The annual supplemental payments in a fiscal year shall be the lesser of:

(a) The difference between each qualifying hospital's outpatient Medicaid billed charges and Medicaid payments the hospital receives for services processed for fee-for-service Medicaid individuals during the fiscal year; or

(b) $1,894 per Medicaid outpatient visit for state plan rate year 2012. For future state plan rate years, this number shall be adjusted by inflation based on the Virginia moving average values as compiled and published by Global Insight (or its successor) under contract with the department.

(2) Hospitals participating in the DSH program shall receive quarterly supplemental payments for the outpatient services rendered during the quarter. Each quarterly payment distribution shall occur not more than two years after the year in which the qualifying hospital's entitlement arises. The annual supplemental payments in a fiscal year shall be the lesser of:

(a) The difference between each qualifying hospital's outpatient Medicaid billed charges and Medicaid payments the hospital receives for services processed for fee-for-service Medicaid individuals during the fiscal year;

(b) $1,894 per Medicaid outpatient visit for state plan rate year 2012. For future state plan rate years, this number shall be adjusted by inflation based on the Virginia moving average values as compiled and published by Global Insight (or its successor) under contract with the department; or

(c) The difference between the limit calculated under § 1923(g) of the Social Security Act and the hospital's DSH payments for the applicable payment period.

c. Limit. Maximum aggregate payments to all qualifying hospitals in this group shall not exceed the available upper payment limit per state fiscal year.

12VAC30-80-30. Fee-for-service providers.

A. Payment for the following services, except for physician services, shall be the lower of the state agency fee schedule (12VAC30-80-190 has information about the state agency fee schedule) or actual charge (charge to the general public):

1. Physicians' services. Payment for physician services shall be the lower of the state agency fee schedule or actual charge (charge to the general public). The following limitations shall apply to emergency physician services.

a. Definitions. The following words and terms, when used in this subdivision 1 shall have the following meanings when applied to emergency services unless the context clearly indicates otherwise:

"All-inclusive" means all emergency service and ancillary service charges claimed in association with the emergency department visit, with the exception of laboratory services.

"DMAS" means the Department of Medical Assistance Services consistent with Chapter 10 (§ 32.1-323 et seq.) of Title 32.1 of the Code of Virginia.

"Emergency physician services" means services that are necessary to prevent the death or serious impairment of the health of the recipient. The threat to the life or health of the recipient necessitates the use of the most accessible hospital available that is equipped to furnish the services.

"Recent injury" means an injury that has occurred less than 72 hours prior to the emergency department visit.

b. Scope. DMAS shall differentiate, as determined by the attending physician's diagnosis, the kinds of care routinely rendered in emergency departments and reimburse physicians for nonemergency care rendered in emergency departments at a reduced rate.

(1) DMAS shall reimburse at a reduced and all-inclusive reimbursement rate for all physician services rendered in emergency departments that DMAS determines are nonemergency care.

(2) Services determined by the attending physician to be emergencies shall be reimbursed under the existing methodologies and at the existing rates.

(3) Services determined by the attending physician that may be emergencies shall be manually reviewed. If such services meet certain criteria, they shall be paid under the methodology in subdivision 1 b (2) of this subsection. Services not meeting certain criteria shall be paid under the methodology in subdivision 1 b (1) of this subsection. Such criteria shall include, but not be limited to:

(a) The initial treatment following a recent obvious injury.

(b) Treatment related to an injury sustained more than 72 hours prior to the visit with the deterioration of the symptoms to the point of requiring medical treatment for stabilization.

(c) The initial treatment for medical emergencies including indications of severe chest pain, dyspnea, gastrointestinal hemorrhage, spontaneous abortion, loss of consciousness, status epilepticus, or other conditions considered life threatening.

(d) A visit in which the recipient's condition requires immediate hospital admission or the transfer to another facility for further treatment or a visit in which the recipient dies.

(e) Services provided for acute vital sign changes as specified in the provider manual.

(f) Services provided for severe pain when combined with one or more of the other guidelines.

(4) Payment shall be determined based on ICD diagnosis codes and necessary supporting documentation. As used here, the term "ICD" is defined in 12VAC30-95-5.

(5) DMAS shall review on an ongoing basis the effectiveness of this program in achieving its objectives and for its effect on recipients, physicians, and hospitals. Program components may be revised subject to achieving program intent objectives, the accuracy and effectiveness of the ICD code designations, and the impact on recipients and providers. As used here, the term "ICD" is defined in 12VAC30-95-5.

2. Dentists' services.

3. Mental health services including: (i) community mental health services, (ii) services of a licensed clinical psychologist, or (iii) mental health services provided by a physician.

a. Services provided by licensed clinical psychologists shall be reimbursed at 90% of the reimbursement rate for psychiatrists.

b. Services provided by independently enrolled licensed clinical social workers, licensed professional counselors or licensed clinical nurse specialists-psychiatric shall be reimbursed at 75% of the reimbursement rate for licensed clinical psychologists.

4. Podiatry.

5. Nurse-midwife services.

6. Durable medical equipment (DME) and supplies.

Definitions. The following words and terms when used in this section shall have the following meanings unless the context clearly indicates otherwise:

"DMERC" means the Durable Medical Equipment Regional Carrier rate as published by the Centers for Medicare and Medicaid Services at http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/DMEPOSFeeSched/DMEPOS-Fee-Schedule.html.

"HCPCS" means the Healthcare Common Procedure Coding System, Medicare's National Level II Codes, HCPCS 2006 (Eighteenth edition), as published by Ingenix, as may be periodically updated.

a. Obtaining prior authorization shall not guarantee Medicaid reimbursement for DME.

b. The following shall be the reimbursement method used for DME services:

(1) If the DME item has a DMERC rate, the reimbursement rate shall be the DMERC rate minus 10%. For dates of service on or after July 1, 2014, DME items subject to the Medicare competitive bidding program shall be reimbursed the lower of:

(a) The current DMERC rate minus 10% or

(b) The average of the Medicare competitive bid rates in Virginia markets.

(2) For DME items with no DMERC rate, the agency shall use the agency fee schedule amount. The reimbursement rates for DME and supplies shall be listed in the DMAS Medicaid Durable Medical Equipment (DME) and Supplies Listing and updated periodically. The agency fee schedule shall be available on the agency website at www.dmas.virginia.gov.

(3) If a DME item has no DMERC rate or agency fee schedule rate, the reimbursement rate shall be the manufacturer's net charge to the provider, less shipping and handling, plus 30%. The manufacturer's net charge to the provider shall be the cost to the provider minus all available discounts to the provider. Additional information specific to how DME providers, including manufacturers who are enrolled as providers, establish and document their cost or costs for DME codes that do not have established rates can be found in the relevant agency guidance document.

c. DMAS shall have the authority to amend the agency fee schedule as it deems appropriate and with notice to providers. DMAS shall have the authority to determine alternate pricing, based on agency research, for any code that does not have a rate.

d. The reimbursement for incontinence supplies shall be by selective contract. Pursuant to § 1915(a)(1)(B) of the Social Security Act and 42 CFR 431.54(d), the Commonwealth assures that adequate services/devices shall be available under such arrangements.

e. Certain durable medical equipment used for intravenous therapy and oxygen therapy shall be bundled under specified procedure codes and reimbursed as determined by the agency. Certain services/durable medical equipment such as service maintenance agreements shall be bundled under specified procedure codes and reimbursed as determined by the agency.

(1) Intravenous therapies. The DME for a single therapy, administered in one day, shall be reimbursed at the established service day rate for the bundled durable medical equipment and the standard pharmacy payment, consistent with the ingredient cost as described in 12VAC30-80-40, plus the pharmacy service day and dispensing fee. Multiple applications of the same therapy shall be included in one service day rate of reimbursement. Multiple applications of different therapies administered in one day shall be reimbursed for the bundled durable medical equipment service day rate as follows: the most expensive therapy shall be reimbursed at 100% of cost; the second and all subsequent most expensive therapies shall be reimbursed at 50% of cost. Multiple therapies administered in one day shall be reimbursed at the pharmacy service day rate plus 100% of every active therapeutic ingredient in the compound (at the lowest ingredient cost methodology) plus the appropriate pharmacy dispensing fee.

(2) Respiratory therapies. The DME for oxygen therapy shall have supplies or components bundled under a service day rate based on oxygen liter flow rate or blood gas levels. Equipment associated with respiratory therapy may have ancillary components bundled with the main component for reimbursement. The reimbursement shall be a service day per diem rate for rental of equipment or a total amount of purchase for the purchase of equipment. Such respiratory equipment shall include, but not be limited to, oxygen tanks and tubing, ventilators, noncontinuous ventilators, and suction machines. Ventilators, noncontinuous ventilators, and suction machines may be purchased based on the individual patient's medical necessity and length of need.

(3) Service maintenance agreements. Provision shall be made for a combination of services, routine maintenance, and supplies, to be known as agreements, under a single reimbursement code only for equipment that is recipient owned. Such bundled agreements shall be reimbursed either monthly or in units per year based on the individual agreement between the DME provider and DMAS. Such bundled agreements may apply to, but not necessarily be limited to, either respiratory equipment or apnea monitors.

7. Local health services.

8. Laboratory services (other than inpatient hospital). The agency's rates for clinical laboratory services were set as of July 1, 2014, and are effective for services on or after that date.

9. Payments to physicians who handle laboratory specimens, but do not perform laboratory analysis (limited to payment for handling).

10. X-ray services.

11. Optometry services.

12. Medical supplies and equipment.

13. Home health services. Effective June 30, 1991, cost reimbursement for home health services is eliminated. A rate per visit by discipline shall be established as set forth by 12VAC30-80-180.

14. Physical therapy; occupational therapy; and speech, hearing, language disorders services when rendered to noninstitutionalized recipients.

15. Clinic services, as defined under 42 CFR 440.90.

16. Supplemental payments for services provided by Type I physicians.

a. In addition to payments for physician services specified elsewhere in this State Plan, DMAS provides supplemental payments to Type I physicians for furnished services provided on or after July 2, 2002. A

Type I physician is a member of a practice group organized by or under the control of a state academic health system or an academic health system that operates under a state authority and includes a hospital, who has entered into contractual agreements for the assignment of payments in accordance with 42 CFR 447.10.

b. Effective July 2, 2002, the supplemental payment amount for Type I physician services shall be the difference between the Medicaid payments otherwise made for Type I physician services and Medicare rates. Effective August 13, 2002, the supplemental payment amount for Type I physician services shall be the difference between the Medicaid payments otherwise made for physician services and 143% of Medicare rates. Effective January 3, 2012, the supplemental payment amount for Type I physician services shall be the difference between the Medicaid payments otherwise made for physician services and 181% of Medicare rates. Effective January 1, 2013, the supplemental payment amount for Type I physician services shall be the difference between the Medicaid payments otherwise made for physician services and 197% of Medicare rates. Effective April 8, 2014, the supplemental payment amount for Type I physician services shall be the difference between the Medicaid payments otherwise made for physician services and 201% of Medicare rates.

c. The methodology for determining the Medicare equivalent of the average commercial rate is described in 12VAC30-80-300.

d. Supplemental payments shall be made quarterly no later than 90 days after the end of the quarter.

e. Payment will not be made to the extent that the payment would duplicate payments based on physician costs covered by the supplemental payments.

17. Supplemental payments for services provided by physicians at Virginia freestanding children's hospitals.

a. In addition to payments for physician services specified elsewhere in this State Plan, DMAS provides supplemental payments to Virginia freestanding children's hospital physicians providing services at freestanding children's hospitals with greater than 50% Medicaid inpatient utilization in state fiscal year 2009 for furnished services provided on or after July 1, 2011. A freestanding children's hospital physician is a member of a practice group (i) organized by or under control of a qualifying Virginia freestanding children's hospital, or (ii) who has entered into contractual agreements for provision of physician services at the qualifying Virginia freestanding children's hospital and that is designated in writing by the Virginia freestanding children's hospital as a practice plan for the quarter for which the supplemental payment is made subject to DMAS approval. The freestanding children's hospital physicians also must have entered into contractual agreements with the practice plan for the assignment of payments in accordance with 42 CFR 447.10.

b. Effective July 1, 2011, the supplemental payment amount for freestanding children's hospital physician services shall be the difference between the Medicaid payments otherwise made for freestanding children's hospital physician services and 143% of Medicare rates ~~as defined in the supplemental payment calculation for Type I physician services~~ subject to the following reduction. Final payments shall be reduced on a prorated basis so that total payments for freestanding children's hospital physician services are $400,000 less annually than would be calculated based on the formula in the previous sentence. Payments shall be made ~~on the same schedule as Type I physicians~~ quarterly no later than 90 days after the end of the quarter. The methodology for determining the Medicare equivalent of the average commercial rate is described in 12VAC30-80-300.

18. Supplemental payments for services provided by physicians affiliated with publicly funded medical schools in Tidewater.

a. In addition to payments for physician services specified elsewhere in the State Plan, the Department of Medical Assistance Services provides supplemental payments to physicians affiliated with publicly funded medical schools in Tidewater for furnished services provided on or after October 1, 2012. A physician affiliated with a publicly funded medical school is a physician who is employed by a publicly funded medical school that is a political subdivision of the Commonwealth of Virginia, who provides clinical services through the faculty practice plan affiliated with the publicly funded medical school, and who has entered into contractual agreements for the assignment of payments in accordance with 42 CFR 447.10.

b. Effective October 1, 2012, the supplemental payment amount for services furnished by physicians affiliated with publicly funded medical schools in Tidewater shall be the difference between the Medicaid payments otherwise made for physician services and 135% of Medicare rates. The methodology for determining the Medicare equivalent of the average commercial rate is described in 12VAC30-80-300.

~~18.~~ 19. Supplemental payments to nonstate government-owned or operated clinics.

a. In addition to payments for clinic services specified elsewhere in the regulations, DMAS provides supplemental payments to qualifying nonstate government-owned or ~~operated~~ government-operated clinics for outpatient services provided to Medicaid patients on or after July 2, 2002. Clinic means a facility that is not part of a hospital but is organized and operated to provide medical care to outpatients. Outpatient services include those furnished by or under the direction

of a physician, dentist or other medical professional acting within the scope of his license to an eligible individual. Effective July 1, 2005, a qualifying clinic is a clinic operated by a community services board. The state share for supplemental clinic payments will be funded by general fund appropriations.

b. The amount of the supplemental payment made to each qualifying nonstate government-owned or ~~operated~~ government-operated clinic is determined by:

(1) Calculating for each clinic the annual difference between the upper payment limit attributed to each clinic according to subdivision ~~18~~ 19 d of this subsection and the amount otherwise actually paid for the services by the Medicaid program;

(2) Dividing the difference determined in subdivision ~~18~~ 19 b (1) of this subsection for each qualifying clinic by the aggregate difference for all such qualifying clinics; and

(3) Multiplying the proportion determined in subdivision ~~18~~ 19 b (2) of this subsection by the aggregate upper payment limit amount for all such clinics as determined in accordance with 42 CFR 447.321 less all payments made to such clinics other than under this section.

c. Payments for furnished services made under this section may be made in one or more installments at such times, within the fiscal year or thereafter, as is determined by DMAS.

d. To determine the aggregate upper payment limit referred to in subdivision ~~18~~ 19 b (3) of this subsection, Medicaid payments to nonstate government-owned or ~~operated~~ government-operated clinics will be divided by the "additional factor" whose calculation is described in Attachment 4.19-B, Supplement 4 (12VAC30-80-190 B 2) in regard to the state agency fee schedule for Resource Based Relative Value Scale. Medicaid payments will be estimated using payments for dates of service from the prior fiscal year adjusted for expected claim payments. Additional adjustments will be made for any program changes in Medicare or Medicaid payments.

~~19.~~ 20. Personal assistance services (PAS) for individuals enrolled in the Medicaid Buy-In program described in 12VAC30-60-200. These services are reimbursed in accordance with the state agency fee schedule described in 12VAC30-80-190. The state agency fee schedule is published on the DMAS website at http://www.dmas.virginia.gov.

B. Hospice services payments must be no lower than the amounts using the same methodology used under Part A of Title XVIII, and take into account the room and board furnished by the facility, equal to at least 95% of the rate that would have been paid by the state under the plan for facility services in that facility for that individual. Hospice services shall be paid according to the location of the service delivery and not the location of the agency's home office.

Part II
Nursing Home Payment System

Subpart I
General

12VAC30-90-19. ~~Certified public expenditures~~ Supplemental payments for ~~locally-owned~~ nonstate government-owned nursing facilities.

A. In addition to payments made elsewhere, effective July 1, 2005, DMAS shall draw down federal funds to cover unreimbursed Medicaid costs for inpatient services provided by nonstate government-owned nursing ~~homes~~ facilities as certified by the provider through cost reports. A ~~local government~~ nonstate government-owned nursing facility is defined as a provider owned or operated by a county, city, or other local government agency, instrumentality, authority, or commission.

B. Effective July 1, 2014, DMAS shall make additional supplemental payments to nonstate government-owned nursing facilities that meet the requirements in subsection A of this section. Quarterly supplemental payment for each facility shall be calculated in the following manner:

1. Annually calculate for each nursing facility what Medicare would have paid for Medicaid services in the base year, which is the most recently available state fiscal year, using the Medicare skilled nursing facility prospective payment system updated for market basket adjustments and other rate changes to the rate year, which is the upcoming state fiscal year.

2. Annually calculate for each facility what Medicaid paid in the base year including any supplemental payments resulting from subsection A of this section updated for inflation and other rate changes to the rate year.

3. Calculate a per diem supplemental payment for each facility by subtracting Medicaid expenditures calculated in subdivision 2 of this subsection from what Medicare would have paid calculated in subdivision 1 of this subsection and dividing the result by the number of paid days for each facility in the base year.

4. At the end of each quarter of the rate year, calculate the number of paid days in the quarter for each facility and multiply it by the per diem supplemental payment for each facility.

C. Maximum aggregate payments to all qualifying nursing facilities shall not exceed the available upper payment in the current state fiscal year.

VA.R. Doc. No. R17-4190; Filed September 2, 2016, 3:51 p.m.

TITLE 18. PROFESSIONAL AND OCCUPATIONAL LICENSING

AUCTIONEERS BOARD

Final Regulation

REGISTRAR'S NOTICE: The Auctioneers Board is claiming an exclusion from Article 2 of the Administrative Process Act in accordance with § 2.2-4006 A 4 a of the Code of Virginia, which excludes regulations that are necessary to conform to changes in Virginia statutory law where no agency discretion is involved. The Auctioneers Board will receive, consider, and respond to petitions by any interested person at any time with respect to reconsideration or revision.

Title of Regulation: **18VAC25-21. Regulations of the Virginia Auctioneers Board (amending 18VAC25-21-250, 18VAC25-21-260).**

Statutory Authority: §§ 54.1-201, 54.1-602, and 54.1-603.1 of the Code of Virginia.

Effective Date: November 2, 2016.

Agency Contact: Marian H. Brooks, Regulatory Board Administrator, Auctioneers Board, 9960 Mayland Drive, Suite 400, Richmond, VA 23233, telephone (804) 367-8514, FAX (866) 465-6206, or email auctioneers@dpor.virginia.gov.

Summary:

The amendments exempt any auctioneer licensed by the Auctioneers Board for 25 years or more and who is 70 years of age or older from continuing education requirements. These amendments conform to Chapter 504 of the 2016 Acts of Assembly.

18VAC25-21-250. Continuing education requirements for renewal or reinstatement.

A. Licensees whose licenses expire or who apply to reinstate shall be required to comply with the continuing education provisions of this chapter, excluding any auctioneer licensed by the board for 25 years or more and who is 70 years of age or older at the time of license expiration pursuant to § 54.1-603.1 A of the Code of Virginia.

B. Licensees subject to the provisions of this section are required to complete at least six continuing education credit hours of board-approved continuing education courses for any license renewal or reinstatement.

A Virginia licensee that is also licensed in another state with which the board shares a reciprocal agreement may use board-approved continuing education in that state to meet the required six hours of continuing education for Virginia, provided that the reciprocal jurisdiction affords the same privilege to Virginia licensees.

C. 1. Each licensee applying for renewal shall certify that he has met the continuing education requirements of this chapter. Only continuing education courses completed during the license period immediately prior to the expiration date of the license shall be acceptable in order to renew the license.

2. Licensees shall maintain records of completion of continuing education credit hours for two years from the date of expiration of the license for which the continuing education credit hours are being used to renew the license. Individuals shall provide such records to the board or its duly authorized agents upon request.

3. Continuing education credit hours utilized to satisfy the continuing education requirements to renew a license shall be valid only for that renewal and shall not be accepted for any subsequent renewal cycles or reinstatement.

D. 1. Each individual applying for reinstatement shall provide, as part of his reinstatement application, evidence of compliance with the continuing education requirements of this chapter. The completion date of continuing education courses submitted in support of a reinstatement application shall not be more than two years old as of the date a complete reinstatement application is received by the board.

2. Continuing education credit hours utilized to satisfy the continuing education requirements in order to reinstate a license shall be valid only for that reinstatement and shall not be accepted for any subsequent renewal cycles or reinstatement.

E. Notwithstanding the provisions of subsection C of this section, continuing education hours earned during a licensing renewal cycle to satisfy the continuing education requirements of the preceding licensing renewal cycle shall be valid only for that preceding license renewal cycle and shall not be accepted for any subsequent renewal cycles or reinstatement.

18VAC25-21-260. Exemptions and waivers.

A. Pursuant to § 54.1-603.1 A of the Code of Virginia, the board shall exempt any auctioneer licensed by the board for 25 years or more and who is 70 years of age or older from the requirement to comply with the continuing education provisions of this chapter.

B. Pursuant to § 54.1-603.1 B of the Code of Virginia, the board may grant exemptions or waive or reduce the number of continuing education hours required in cases of certified illness or undue hardship. However, such exemptions, waivers, or reductions shall not relieve the individual of his obligation to comply with any other requirements of this chapter, including but not limited to the provisions of 18VAC25-21-80 or 18VAC25-21-90.

VA.R. Doc. No. R17-4872; Filed September 1, 2016, 1:09 p.m.

BOARD OF SOCIAL WORK

Proposed Regulation

Title of Regulation: **18VAC140-20. Regulations Governing the Practice of Social Work (amending 18VAC140-20-40, 18VAC140-20-50).**

Statutory Authority: § 54.1-2400 of the Code of Virginia.

Public Hearing Information:

October 14, 2016 - 10:05 a.m. - Department of Health Professions, 9960 Mayland Drive, 2nd Floor, Richmond, VA 23233

Public Comment Deadline: December 02, 2016.

Agency Contact: Jaime Hoyle, Executive Director, Board of Social Work, 9960 Mayland Drive, Suite 300, Richmond, VA 23233-1463, telephone (804) 367-4406, FAX (804) 527-4435, or email jaime.hoyle@dhp.virginia.gov.

Basis: Regulations are promulgated under the general authority of § 54.1-2400 of the Code of Virginia, which provides the Board of Social Work the authority to promulgate regulations to administer the regulatory system.

Purpose: Clarification of the regulations for supervised experience will ensure that supervisees are appropriately supervised in the provision of clinical services and therefore offer more protection for clients and the general public. Protection from unprofessional conduct by a licensee is the primary goal of this action.

Substance: Regulations are amended to (i) require submission of an application for licensure within two years of completion of supervised experience; and (ii) require register supervision whenever there is a change in the supervisor, the supervised practice, or clinical services or location.

Issues: The primary advantage to the public is a more explicit rule about supervision and submission of applications. There are no disadvantages to the public. There are no advantages and disadvantages to the agency or the Commonwealth.

Department of Planning and Budget's Economic Impact Analysis:

Summary of the Proposed Amendments to Regulation. The Board of Social Work (Board) proposes to: 1) require an application for licensure as a clinical social worker be submitted within two years of completing the supervised experience requirement and 2) clarify that for clinical social worker licensure applicants' supervised experience, if there is a change in the supervisor, the supervised practice, or clinical services or location, the applicant must reregister and get Board approval.

Result of Analysis. The benefits likely exceed the costs.

Estimated Economic Impact. The Department of Health Professions discards incomplete applications for licensure after one year, unless an application is complete but for the documentation of supervised experience. In that case, the agency retains it for two years.[1] Thus the proposed requirement that clinical social worker license applications are completed within two years of completion of the supervised experience is consistent with the Board's and agency's current file retention policy.

In Section 30: "Fees," the current regulations already lists a $25 fee for when the clinical social worker license applicant has an addition to or change in registration of supervision. The Board proposes to add language in Section 50: "Experience requirements for a licensed clinical social worker" clarifying that applicants do need to send notification of the addition or change on a Board form (as well as pay the $25 fee). The proposed change is moderately beneficial in that it makes current requirements clearer.

Businesses and Entities Affected. The proposed amendments potentially affect licensed clinical social workers, licensed social workers, and applicants for clinical social worker licensure. Licensed clinical social workers and licensed social workers are among the 6,828 individuals regulated by the Board.[2]

Localities Particularly Affected. The proposed amendments do not disproportionately affect particular localities.

Projected Impact on Employment. The proposed amendments are unlikely to have a significant impact on employment.

Effects on the Use and Value of Private Property. The proposed amendments do not affect the use and value of private property.

Real Estate Development Costs. The proposed amendments do not affect real estate development costs.

Small Businesses:

Definition. Pursuant to § 2.2-4007.04 of the Code of Virginia, small business is defined as "a business entity, including its affiliates, that (i) is independently owned and operated and (ii) employs fewer than 500 full-time employees or has gross annual sales of less than $6 million."

Costs and Other Effects. The proposed amendments do not significantly affect small businesses.

Alternative Method that Minimizes Adverse Impact. The proposed amendments do not adversely affect small businesses.

Adverse Impacts:

Businesses. The proposed amendments do not adversely affect businesses.

Localities. The proposed amendments do not adversely affect localities.

Other Entities. The proposed amendments do not adversely affect other entities.

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[1]Source: Department of Health Professions

[2]18VAC140-20-160. Grounds for Disciplinary Action or Denial of Issuance of a License. http://law.lis.virginia.gov/admincode/title18/agency140/chapter20/section160/

Agency's Response to Economic Impact Analysis: The Board of Social Work concurs with the economic impact analysis.

Summary:

The proposed amendments (i) require submission of an application for licensure within two years of completion of supervised experience; and (ii) require registration of supervision whenever there is a change in the supervisor, the supervised practice, or clinical services or location.

Part II
Requirements for Licensure

18VAC140-20-40. Requirements for licensure by examination as a licensed clinical social worker.

Every applicant for examination for licensure as a licensed clinical social worker shall:

1. Meet the education requirements prescribed in 18VAC140-20-49 and experience requirements prescribed in 18VAC140-20-50.

2. Submit a completed application to the board office within two years of completion of supervised experience to include:

a. Documentation, on the appropriate forms, of the successful completion of the supervised experience requirements of 18VAC140-20-50 along with documentation of the supervisor's out-of-state license where applicable. Applicants whose former supervisor is deceased, or whose whereabouts is unknown, shall submit to the board a notarized affidavit from the present chief executive officer of the agency, corporation or partnership in which the applicant was supervised. The affidavit shall specify dates of employment, job responsibilities, supervisor's name and last known address, and the total number of hours spent by the applicant with the supervisor in face-to-face supervision;

b. The application fee prescribed in 18VAC140-20-30;

c. Official transcript or documentation submitted from the appropriate institutions of higher education that verifies successful completion of educational requirements set forth in 18VAC140-20-49;

d. Documentation of any other health or mental health licensure or certification, if applicable; and

e. A current report from the U.S. Department of Health and Human Services National Practitioner Data Bank (NPDB).

3. Provide evidence of passage of the examination prescribed in 18VAC140-20-70.

18VAC140-20-50. Experience requirements for a licensed clinical social worker.

A. Supervised experience. Supervised post-master's degree experience without prior written board approval will not be accepted toward licensure, except supervision obtained in another United States jurisdiction may be accepted if it met the requirements of that jurisdiction.

1. Registration. An individual who proposes to obtain supervised post-master's degree experience in Virginia shall, prior to the onset of such supervision, or whenever there is an addition or change of supervised practice, supervisor, clinical social work services or location:

a. Register on a form provided by the board and completed by the supervisor and the supervised individual; and

b. Pay the registration of supervision fee set forth in 18VAC140-20-30.

2. Hours. The applicant shall have completed a minimum of 3,000 hours of supervised post-master's degree experience in the delivery of clinical social work services and in ancillary services that support such delivery. A minimum of one hour and a maximum of four hours of face-to-face supervision shall be provided per 40 hours of work experience for a total of at least 100 hours. No more than 50 of the 100 hours may be obtained in group supervision, nor shall there be more than six persons being supervised in a group unless approved in advance by the board. The board may consider alternatives to face-to-face supervision if the applicant can demonstrate an undue burden due to hardship, disability or geography.

a. Supervised experience shall be acquired in no less than two nor more than four consecutive years.

b. Supervisees shall obtain throughout their hours of supervision a minimum of 1,380 hours of supervised experience in face-to-face client contact in the delivery of clinical social work services. The remaining hours may be spent in ancillary services supporting the delivery of clinical social work services.

3. An individual who does not complete the supervision requirement after four consecutive years of supervised experience may request an extension of up to 12 months. The request for an extension shall include evidence that demonstrates extenuating circumstances that prevented completion of the supervised experience within four consecutive years.

B. Requirements for supervisors.

1. The supervisor shall hold an active, unrestricted license as a licensed clinical social worker in the jurisdiction in which the clinical services are being rendered with at least two years of post-licensure clinical social work experience. The board may consider supervisors with commensurate qualifications if the applicant can demonstrate an undue burden due to geography or disability or if supervision was obtained in another United States jurisdiction.

2. The supervisor shall have received professional training in supervision, consisting of a three credit-hour graduate course in supervision or at least 14 hours of continuing education offered by a provider approved under 18VAC140-20-105. The graduate course or hours of continuing education in supervision shall be obtained by a

supervisor within five years immediately preceding registration of supervision.

3. The supervisor shall not provide supervision for a family member or provide supervision for anyone with whom he has a dual relationship.

4. The board may consider supervisors from jurisdictions outside of Virginia who provided clinical social work supervision if they have commensurate qualifications but were either (i) not licensed because their jurisdiction did not require licensure or (ii) were not designated as clinical social workers because the jurisdiction did not require such designation.

C. Responsibilities of supervisors. The supervisor shall:

1. Be responsible for the social work activities of the supervisee as set forth in this subsection once the supervisory arrangement is accepted;

2. Review and approve the diagnostic assessment and treatment plan of a representative sample of the clients assigned to the applicant during the course of supervision. The sample should be representative of the variables of gender, age, diagnosis, length of treatment and treatment method within the client population seen by the applicant. It is the applicant's responsibility to assure the representativeness of the sample that is presented to the supervisor;

3. Provide supervision only for those social work activities for which the supervisor has determined the applicant is competent to provide to clients;

4. Provide supervision only for those activities for which the supervisor is qualified by education, training and experience;

5. Evaluate the supervisee's knowledge and document minimal competencies in the areas of an identified theory base, application of a differential diagnosis, establishing and monitoring a treatment plan, development and appropriate use of the professional relationship, assessing the client for risk of imminent danger, understanding the requirements of law for reporting any harm or risk of harm to self or others, and implementing a professional and ethical relationship with clients;

6. Be available to the applicant on a regularly scheduled basis for supervision;

7. Maintain documentation, for five years post-supervision, of which clients were the subject of supervision; and

8. Ensure that the board is notified of any change in supervision or if supervision has ended or been terminated by the supervisor.

D. Responsibilities of supervisees.

1. Supervisees may not directly bill for services rendered or in any way represent themselves as independent, autonomous practitioners, or licensed clinical social workers.

2. During the supervised experience, supervisees shall use their names and the initials of their degree, and the title "Supervisee in Social Work" in all written communications.

3. Clients shall be informed in writing of the supervisee's status and the supervisor's name, professional address, and phone number.

4. Supervisees shall not supervise the provision of clinical social work services provided by another person.

VA.R. Doc. No. R16-4574; Filed September 6, 2016, 7:39 a.m.

EXECUTIVE ORDER NUMBER 58 (2016)

Declaration of a State of Emergency for the Commonwealth of Virginia Due to Hurricane Hermine

Importance of the Initiative

On this date, September 2, 2016, I am declaring a state of emergency to exist for the Commonwealth of Virginia based on the National Hurricane Center and National Weather Service forecasts projecting impacts from Hurricane Hermine that could produce damaging high winds, periods of heavy rainfall, power outages, and flooding across the eastern portion of the Commonwealth. These conditions have the potential to impact life safety and create significant transportation issues throughout Virginia.

The health and general welfare of the citizens require that state action be taken to help alleviate the conditions caused by this situation. The effects of this incident constitute a disaster wherein human life and public and private property are imperiled, as described in § 44-146.16 of the Code of Virginia.

Therefore, by virtue of the authority vested in me by § 44-146.17 of the Code of Virginia, as Governor and as Director of Emergency Management, and by virtue of the authority vested in me by Article V, Section 7 of the Constitution of Virginia and by § 44-75.1 of the Code of Virginia, as Governor and Commander-in-Chief of the armed forces of the Commonwealth, and subject always to my continuing and ultimate authority and responsibility to act in such matters, I hereby confirm, ratify, and memorialize in writing my verbal orders issued on this date, September 2, 2016, whereby I am proclaiming that a state of emergency exists, and I am directing that appropriate assistance be rendered by agencies of both state and local governments to prepare for potential impacts of Hurricane Hermine, alleviate any conditions resulting from the incident, and to implement recovery and mitigation operations and activities so as to return impacted areas to pre-event conditions in so far as possible. Pursuant to § 44-75.1(A)(3) and (A)(4) of the Code of Virginia, I am also directing that the Virginia National Guard and the Virginia Defense Force be called forth to state active duty to be prepared to assist in providing such aid. This shall include Virginia National Guard assistance to the Virginia Department of State Police to direct traffic, prevent looting, and perform such other law enforcement functions as the Superintendent of State Police, in consultation with the State Coordinator of Emergency Management, the Adjutant General, and the Secretary of Public Safety and Homeland Security, may find necessary.

In order to marshal all public resources and appropriate preparedness, response, and recovery measures to meet this threat and recover from its effects, and in accordance with my authority contained in § 44-146.17 of the Code of Virginia, I hereby order the following protective and restoration measures:

A. Implementation by state agencies of the Commonwealth of Virginia Emergency Operations Plan (COVEOP), as amended, along with other appropriate state agency plans.

B. Activation of the Virginia Emergency Operations Center (VEOC) and the Virginia Emergency Support Team (VEST) to coordinate the provision of assistance to local governments. I am directing that the VEOC and VEST coordinate state actions in support of affected localities, other mission assignments to agencies designated in the COVEOP, and others that may be identified by the State Coordinator of Emergency Management, in consultation with the Secretary of Public Safety and Homeland Security, which are needed to provide for the preservation of life, protection of property, and implementation of recovery activities.

C. The authorization to assume control over the Commonwealth's state-operated telecommunications systems, as required by the State Coordinator of Emergency Management, in coordination with the Virginia Information Technologies Agency, and with the consultation of the Secretary of Public Safety and Homeland Security, making all systems assets available for use in providing adequate communications, intelligence, and warning capabilities for the incident, pursuant to § 44-146.18 of the Code of Virginia.

D. The evacuation of areas threatened or stricken by effects of Hurricane Hermine, as appropriate. Following a declaration of a local emergency pursuant to § 44-146.21 of the Code of Virginia, if a local governing body determines that evacuation is deemed necessary for the preservation of life or other emergency mitigation, response, or recovery effort, pursuant to § 44-146.17(1) of the Code of Virginia, I direct the evacuation of all or part of the populace therein from such areas and upon such timetable as the local governing body, in coordination with the VEOC, acting on behalf of the State Coordinator of Emergency Management, shall determine. Notwithstanding the foregoing, I reserve the right to direct and compel evacuation from the same and different areas and determine a different timetable both where local governing bodies have made such a determination and where local governing bodies have not made such a determination. Also, in those localities that have declared a local emergency pursuant to § 44-146.21 of the Code of Virginia, if the local governing body determines that controlling movement of persons is deemed necessary for the preservation of life, public safety, or other emergency mitigation, response, or recovery effort, pursuant to § 44-146.17(1) of the Code of Virginia, I authorize the control of ingress and egress at an emergency area, including the movement of persons within the area and the occupancy of premises therein upon such timetable as the local governing body, in coordination with the State Coordinator of Emergency Management and the VEOC, shall determine. Violations of any order to citizens to

evacuate shall constitute a violation of this Executive Order and are punishable as a Class 1 misdemeanor.

E. The activation, implementation, and coordination of appropriate mutual aid agreements and compacts, including the Emergency Management Assistance Compact (EMAC), and the authorization of the State Coordinator of Emergency Management to enter into any other supplemental agreements, pursuant to § 44-146.17(5) and § 44-146.28:1 of the Code of Virginia, to provide for the evacuation and reception of injured and other persons and the exchange of medical, fire, police, National Guard personnel and equipment, public utility, reconnaissance, welfare, transportation, and communications personnel, equipment, and supplies. The State Coordinator of Emergency Management is hereby designated as Virginia's authorized representative within the meaning of the Emergency Management Assistance Compact, § 44-146.28:1 of the Code of Virginia.

F. The authorization of the Departments of State Police, Transportation, and Motor Vehicles to grant temporary overweight, over width, registration, or license exemptions to all carriers transporting essential emergency relief supplies, livestock or poultry, feed or other critical supplies for livestock or poultry, heating oil, motor fuels, or propane, or providing restoration of utilities (electricity, gas, phone, water, wastewater, and cable) in and through any area of the Commonwealth in order to support the disaster response and recovery, regardless of their point of origin or destination. Such exemptions shall not be valid on posted structures for restricted weight.

All over width loads, up to a maximum of 12 feet, and over height loads up to a maximum of 14 feet must follow Virginia Department of Motor Vehicles (DMV) hauling permit and safety guidelines.

In addition to described overweight/over width transportation privileges, carriers are also exempt from registration with the Department of Motor Vehicles. This includes vehicles en route and returning to their home base. The above-cited agencies shall communicate this information to all staff responsible for permit issuance and truck legalization enforcement.

Authorization of the State Coordinator of Emergency Management to grant limited exemption of hours of service by any carrier when transporting essential emergency relief supplies, passengers, property, livestock, poultry, equipment, food, feed for livestock or poultry, fuel, construction materials, and other critical supplies to or from any portion of the Commonwealth for purpose of providing direct relief or assistance as a result of this disaster, pursuant to § 52-8.4 of the Code of Virginia and Title 49 Code of Federal Regulations, Section 390.23 and Section 395.3.

The foregoing overweight/over width transportation privileges as well as the regulatory exemption provided by § 52-8.4(A) of the Code of Virginia, and implemented in 19VAC30-20-40(B) of the "Motor Carrier Safety Regulations," shall remain in effect for 15 days from the onset of the disaster, or until emergency relief is no longer necessary, as determined by the Secretary of Public Safety and Homeland Security in consultation with the Secretary of Transportation, whichever is earlier.

G. The discontinuance of provisions authorized in paragraph F above may be implemented and disseminated by publication of administrative notice to all affected and interested parties. I hereby delegate to the Secretary of Public Safety and Homeland Security, after consultation with other affected Cabinet Secretaries, the authority to implement this order as set forth in § 2.2-104 of the Code of Virginia.

H. The authorization of a maximum of $550,000 in state sum sufficient funds for state and local governments mission assignments authorized and coordinated through the Virginia Department of Emergency Management that are allowable as defined by The Stafford Act. This funding is also available for state response and recovery operations and incident documentation. Out of this state disaster sum sufficient, $300,000, or more if available, is authorized for the Department of Military Affairs for the state's portion of the eligible disaster related costs incurred for salaries, travel, and meals during mission assignments authorized and coordinated through the Virginia Department of Emergency Management.

I. The authorization of a maximum of $250,000 for matching funds for the Individuals and Household Program, authorized by The Stafford Act (when presidentially authorized), to be paid from state funds.

J. The implementation by public agencies under my supervision and control of their emergency assignments as directed in the COVEOP without regard to normal procedures pertaining to performance of public work, entering into contracts, incurring of obligations or other logistical and support measures of the Emergency Services and Disaster Laws, as provided in § 44-146.28(b) of the Code of Virginia. § 44-146.24 of the Code of Virginia also applies to the disaster activities of state agencies.

K. Designation of members and personnel of volunteer, auxiliary, and reserve groups including search and rescue (SAR), Virginia Associations of Volunteer Rescue Squads (VAVRS), Civil Air Patrol (CAP), member organizations of the Voluntary Organizations Active in Disaster (VOAD), Radio Amateur Civil Emergency Services (RACES), volunteer fire fighters, Citizen Corps Programs such as Medical Reserve Corps (MRCs), Community Emergency Response Teams (CERTs), and others identified and tasked by the State Coordinator of Emergency Management for specific disaster related mission assignments as representatives of the Commonwealth engaged in emergency

services activities within the meaning of the immunity provisions of § 44-146.23(a) and (f) of the Code of Virginia, in the performance of their specific disaster-related mission assignments.

L. The authorization of appropriate oversight boards, commissions, and agencies to ease building code restrictions and to permit emergency demolition, hazardous waste disposal, debris removal, emergency landfill sitting, and operations and other activities necessary to address immediate health and safety needs without regard to time-consuming procedures or formalities and without regard to application or permit fees or royalties.

M. The activation of the statutory provisions in § 59.1-525 et seq. of the Code of Virginia related to price gouging. Price gouging at any time is unacceptable. Price gouging is even more reprehensible during a time of disaster after issuance of a state of emergency. I have directed all applicable executive branch agencies to take immediate action to address any verified reports of price gouging of necessary goods or services. I make the same request of the Office of the Attorney General and appropriate local officials. I further request that all appropriate executive branch agencies exercise their discretion to the extent allowed by law to address any pending deadlines or expirations affected by or attributable to this disaster event.

N. The following conditions apply to the deployment of the Virginia National Guard and the Virginia Defense Force:

1. The Adjutant General of Virginia, after consultation with the State Coordinator of Emergency Management, shall make available on state active duty such units and members of the Virginia National Guard and Virginia Defense Force and such equipment as may be necessary or desirable to assist in preparations for this incident and in alleviating the human suffering and damage to property.

2. Pursuant to § 52-6 of the Code of Virginia, I authorize the Superintendent of the Department of State Police to appoint any and all such Virginia Army and Air National Guard personnel called to state active duty as additional police officers as deemed necessary. These police officers shall have the same powers and perform the same duties as the State Police officers appointed by the Superintendent. However, they shall nevertheless remain members of the Virginia National Guard, subject to military command as members of the State Militia. Any bonds and/or insurance required by § 52-7 of the Code of Virginia shall be provided for them at the expense of the Commonwealth.

3. In all instances, members of the Virginia National Guard and Virginia Defense Force shall remain subject to military command as prescribed by § 44-78.1 of the Code of Virginia and are not subject to the civilian authorities of county or municipal governments. This shall not be deemed to prohibit working in close cooperation with members of the Virginia Departments of State Police or Emergency Management or local law enforcement or emergency management authorities or receiving guidance from them in the performance of their duties.

4. Should service under this Executive Order result in the injury or death of any member of the Virginia National Guard, the following will be provided to the member and the member's dependents or survivors:

a. Workers' Compensation benefits provided to members of the National Guard by the Virginia Workers' Compensation Act, subject to the requirements and limitations thereof; and, in addition,

b. The same benefits, or their equivalent, for injury, disability, and/or death, as would be provided by the federal government if the member were serving on federal active duty at the time of the injury or death. Any such federal-type benefits due to a member and his or her dependents or survivors during any calendar month shall be reduced by any payments due under the Virginia Workers' Compensation Act during the same month. If and when the time period for payment of Workers' Compensation benefits has elapsed, the member and his or her dependents or survivors shall thereafter receive full federal-type benefits for as long as they would have received such benefits if the member had been serving on federal active duty at the time of injury or death. Any federal-type benefits due shall be computed on the basis of military pay grade E-5 or the member's military grade at the time of injury or death, whichever produces the greater benefit amount. Pursuant to § 44-14 of the Code of Virginia, and subject to the availability of future appropriations which may be lawfully applied to this purpose, I now approve of future expenditures out of appropriations to the Department of Military Affairs for such federal-type benefits as being manifestly for the benefit of the military service.

5. The following conditions apply to service by the Virginia Defense Force:

a. Virginia Defense Force personnel shall receive pay at a rate equivalent to a National Guard soldier of like rank, not to exceed 25 years of service.

b. Lodging and meals shall be provided by the Adjutant General or reimbursed at standard state per diem rates;

c. All privately owned equipment, including, but not limited to, vehicles, boats, and aircraft, will be reimbursed for expense of fuel. Damage or loss of said equipment will be reimbursed, minus reimbursement from personal insurance, if said equipment was authorized for use by the Adjutant General in accordance with § 44-54.12 of the Code of Virginia;

d. In the event of death or injury, benefits shall be provided in accordance with the Virginia Workers' Compensation Act, subject to the requirements and limitations thereof.

Upon my approval, the costs incurred by state agencies and other agents in performing mission assignments through the VEOC of the Commonwealth as defined herein and in § 44-146.28 of the Code of Virginia, other than costs defined in the paragraphs above pertaining to the Virginia National Guard and pertaining to the Virginia Defense Force, in performing these missions shall be paid from state funds.

Effective Date of this Executive Order

This Executive Order shall be effective September 2, 2016, and shall remain in full force and effect until November 30, 2016 unless sooner amended or rescinded by further executive order. Termination of the Executive Order is not intended to terminate any federal-type benefits granted or to be granted due to injury or death as a result of service under this Executive Order.

Given under my hand and under the Seal of the Commonwealth of Virginia, this 2nd day of September, 2016.

/s/ Terence R. McAuliffe
Governor

DEPARTMENT OF BEHAVIORAL HEALTH AND DEVELOPMENTAL SERVICES

Proposed Renewal of Variances to Regulations to Assure the Rights of Individuals Receiving Services from Providers Licensed, Funded, or Operated by the Department of Behavioral Health and Developmental Services (12VAC35-115)

Notice of action: The Department of Behavioral Health and Developmental Services (DBHDS), in accordance with Part VI, Variances (12VAC35-115-220), of the Regulations to Assure the Rights of Individuals Receiving Services from Providers Licensed, Funded, or Operated by the Department of Behavioral Health and Developmental Services (DBHDS) (12VAC35-115), hereafter referred to as the "Human Rights Regulations," is announcing an opportunity for public comment on the applications for renewal of existing variances to the Human Rights Regulations. The purpose of the Human Rights Regulations is to ensure and protect the human rights of individuals receiving services in facilities or programs operated, licensed, or funded by DBHDS.

Each variance application references the specific part of the Human Rights Regulations to which a variance is needed, the proposed wording of the substitute rule or procedure, and the justification for a variance. Each application also describes time limits or other conditions on the duration of the proposed variance and the circumstances that will end the applicability of the variance. After considering all available information including comments, DBHDS intends to submit a written decision deferring, disapproving, modifying, or approving each variance renewal application. All variances shall be approved for a specific time period. The decision and reasons for variance will be published in a later issue of the Register of Regulations.

Purpose of notice: DBHDS is seeking comment on the applications for renewal of the following five existing variances:

A. One variance at Holiday House of Portsmouth, Inc.

Contact list: Variance to Procedures to Ensure Dignity, 12VAC35-115-50 C 8.

Holiday House of Portsmouth is a children's residential program. The facility staff assumes the responsibility for the safety and well-being of the individuals. In order to meet the needs of the individuals receiving services (youth) and protect their rights and privileges, the program will restrict visitation to only those placed on a contact list generated at admission by the individual and the parent/legal guardian. For safety measures, staff are required to check the visitation list to ensure that the visitor is on the list before visitation is granted. The list can be revised at any time per request of the individual and the parent/legal guardian.

B. Four variances at DBHDS Central State Hospital (CSH).

1. Searches and examinations of patients and property in civil and forensic programs:

Variance to Assurance of Respect for Basic Human Dignity, 12VAC35-115-20 A 2.

Variance to Procedures to Ensure Dignity, 12VAC35-115-50 C 3 a.

In specified circumstances, CSH Policy RTS-12c and Policy RTS-26D permits CSH staff in civil and forensic programs to conduct (a) a search of the patient's living area; (b) a search of the patient's property; (c) a visual or electronic external examination of a fully clothed patient; (d) a physical "pat down" of a fully clothed patient; (e) a complete visual inspection of a patient's body with his or her clothing removed; and (f) a body cavity examination of a patient. CSH has guidelines for identifying and preventing the presence and possession of contraband and other dangerous items. This variance and related policies attempt to strike a balance between respect for patient dignity and autonomy and its responsibility to ensure that it detects and removes those items that pose a safety or security risk within its setting. The Local Human Rights Committee (LHRC) is updated monthly on the implementation of this variance.

2. Mail in forensic programs: Variance to Procedures to Ensure Dignity, 12VAC35-115-50 C 6 and C 6 a.

CSH opens, but does not read the mail and packages in the presence of nonforensic patients in secure forensic programs for the purpose of identifying and preventing the presence and possession of contraband and other dangerous items. This variance is intended to provide a safe environment for high risk patients in secure forensic programs. The LHRC is updated monthly on the implementation of this variance.

3. Money in forensic programs: Variance to Procedures for Restrictions on Freedoms of Everyday Life, 12VAC35-115-100.

Background: The vast majority of individuals admitted to secure forensic programs are transferred directly from jail under Title 19.2 of the Code of Virginia for the purpose of receiving evaluation or treatment. However, a number of individuals within secure forensic programs are civilly committed directly from the Department of Corrections or remain in a secure program under a civil commitment status after being found unrestorably incompetent to stand trial or following the dismissal of their criminal charges. Such individuals are routinely reassessed for appropriateness for transfer to a less restrictive treatment setting. In the event their level of risk precludes such a transfer, they are managed in a manner that is consistent with the overall level of risk that justifies continuing treatment in a secure setting.

Nonforensic patients within secure forensic programs are provided opportunities to purchase items in a canteen within the secure forensic perimeter and from external providers. However, patients in forensic units are not permitted to retain any form of money on their person within the secure perimeter. This forensic security practice reduces the likelihood of (a) coins being used as weapons or to compromise the security and surveillance system; and (b) the use of cash to facilitate an elopement by either forensic or nonforensic patients. The LHRC is updated monthly on the implementation of this variance.

4. Clothed "pat downs" and bedroom searches in forensic programs:

Variance to Assurance of Respect for Basic Human Dignity, 12VAC35-115-20 A 2.

Variance to Procedures to Ensure Dignity, 12VAC35-115-50 C 3 a.

CSH conducts routine "pat downs" of all fully clothed patients in secure forensic units (a) before and after group movement within the secure perimeter; (b) anytime a patient leaves the secure perimeter; or (c) anytime a patient has physical access to a visitor who is not an employee of CSH. CSH also conducts proactive routine searches of patients' bedroom areas in the presence of the patient to identify contraband or breaches of safety and security. CSH's practices of these routine searches are essential to safety and security of staff and patients and to maintaining the integrity of the secure perimeter. The LHRC is updated monthly on the implementation of this variance.

Variances to the Human Rights Regulations by the providers listed above are reviewed by the State Human Rights Committee (SHRC) at least annually, with reports to the SHRC regarding the variances as requested.

Public comment period: October 3, 2016, through November 2, 2016.

Description of proposals: Applications for renewal of a variance must comply with the general requirements of Part VI, Variances (12VAC35-115-220), of the Human Rights Regulations.

How to comment: DBHDS accepts written comments by email, fax, and postal mail. In order to be considered, comments must include the full name, address, and telephone number of the person commenting and be received by DBHDS by the last day of the comment period. All information received is part of the public record.

To review a proposal: Variance applications and any supporting documentation may be obtained by contacting the DBHDS representative named below.

Contact Information: Deborah Lochart, Director, Office of Human Rights, Department of Behavioral Health and Developmental Services, 1220 Bank Street, P.O. Box 1797, Richmond, VA 23218-1797, telephone (804) 786-0032, FAX (804) 804 371-4609, or email deb.lochart@dbhds.virginia.gov.

VIRGINIA EMPLOYMENT COMMISSION

Notice of Periodic Review and Small Business Impact Review

Pursuant to Executive Order 17 (2014) and §§ 2.2-4007.1 and 2.2-4017 of the Code of Virginia, the Virginia Employment Commission is currently reviewing each of the regulations listed below to determine whether the regulation should be repealed, amended, or retained in its current form. The review of each regulation will be guided by the principles in Executive Order 17 (2014). Public comment is sought on the review of any issue relating to each regulation, including whether the regulation (i) is necessary for the protection of public health, safety, and welfare or for the economical performance of important governmental functions; (ii) minimizes the economic impact on small businesses in a manner consistent with the stated objectives of applicable law; and (iii) is clearly written and easily understandable.

16VAC5-5, Public Participation Guidelines

16VAC5-10, Definitions and General Provisions

16VAC5-20, Unemployment Taxes

16VAC5-32, Required Records and Reports

16VAC5-42, Combined Employer Accounts

16VAC5-50, Employer Elections to Cover Multistate Workers

16VAC5-60, Benefits

16VAC5-70, Interstate and Multistate Claimants

16VAC5-80, Adjudication

Contact Information: Lisa J. Rowley, Chief Administrative Law Judge, Director of Administrative Law Division, 703 East Main Street, P.O. Box 1358, Richmond, VA 23218-1358, telephone (804) 786-4140, FAX (804) 786-9034, or email lisa.rowley@vec.virginia.gov.

The comment period begins October 3, 2016, and ends October 24, 2016.

Comments must include the commenter's name and address (physical or email) information in order to receive a response to the comment from the agency. Following the close of the public comment period, a report of both reviews will be posted on the Virginia Regulatory Town Hall, and a report of the small business impact review will be published in the Virginia Register of Regulations.

DEPARTMENT OF ENVIRONMENTAL QUALITY

SunEnergy1 Notice of Intent - Small Renewable Energy Project (Solar) Permit by Rule

SunEnergy1 has notified the Department of Environmental Quality of its intent to submit the necessary documentation for a permit by rule (PBR) for the construction of a small renewable energy project (solar) in Mechanicsville, Virginia, pursuant to 9VAC15-60. This 20 megawatts alternating current project will be a ground-mounted solar photovoltaic facility utilizing a single-axis tracking system and comprised of approximately 93,000 solar modules. The facility will be constructed on approximately 250 acres located approximately at 3028 Mechanicsville Turnpike, Mechanicsville, Virginia, GPS point 37.667591 and 77.197951, in Hanover County. The site is zoned A-l agricultural and rezoning will not be required; however, Hanover County will require the issuance of a conditional use permit for which an application is in process. Dominion Virginia Power will be the interconnecting utility and will be purchasing the power from this project to meet its goals for renewable and diverse energy generation. If the public has any questions regarding this project's PBR application, please contact Linda Nwadike at telephone (704) 662-0375 ext. 104 or email linda.nwadike@sunenergyl.com.

Contact Information: Mary E. Major, Department of Environmental Quality, 629 East Main Street, P.O. Box 1105, Richmond, VA 23218, telephone (804) 698-4423, or email mary.major@deq.virginia.gov.

VIRGINIA LOTTERY

Director's Orders

The following Director's Orders of the Virginia Lottery were filed with the Virginia Registrar of Regulations on September 14, 2016. The orders may be viewed at the Virginia Lottery, 900 East Main Street, Richmond, Virginia, or at the office of the Registrar of Regulations, 201 North 9th Street, 2nd Floor, Richmond, Virginia.

Director's Order Number One Hundred Twelve (16)

"7-Eleven Holiday Games Activations" Virginia Lottery Retailer Incentive Program Requirements (effective November 1, 2016)

Director's Order Number One Hundred Thirteen (16)

"Holiday Games Llama Sign" Virginia Lottery Retailer Incentive Program Requirements (effective December 1, 2016)

Director's Order Number One Hundred Fourteen (16)

"Lucky 15% Retailer Incentive Promotion" Virginia Lottery Retailer Incentive Program Requirements (effective November 1, 2016)

Director's Order Number One Hundred Fifteen (16)

"Holiday Madness Bin Sales Retailer Incentive Promotion" Virginia Lottery Retailer Incentive Program Requirements (effective November 1, 2016)

DEPARTMENT OF PLANNING AND BUDGET

Commercial Activities List – Public Comments and Recommendations

Pursuant to § 2.2-1501.1 of the Code of Virginia, the Virginia Department of Planning and Budget (DPB) has developed the Commercial Activities List (CAL). The CAL is posted on the DPB website under Documents, Instructions and Publications as "Commercial Activities List - 2015."

DPB is seeking written comments on the CAL and invites recommendations from the public regarding activities being performed by state agencies that might better be performed by the private sector. The public comment period will begin October 3, 2016, and end October 17, 2016. Please include "CAL" in the subject of the email.

Contact Information: Cari Corr, Department of Planning and Budget, 1111 East Broad Street, Richmond, VA 23219, telephone (804) 225-4549, or email cari.corr@dpb.virginia.gov.

STATE WATER CONTROL BOARD

Total Maximum Daily Loads for Kits Creek

The Department of Environmental Quality (DEQ) seeks written and oral comments from interested persons on the development of total maximum daily loads (TMDLs) for Kits Creek in Lunenburg County, Virginia. This stream is listed on the 2008 § 303(d) TMDL Priority List and Report as impaired due to violations of the state's water quality standards for the aquatic life use due to poor health of the benthic macroinvertebrate community.

Section 303(d) of the Clean Water Act and § 62.1-44.19:7 C of the State Water Control Law require the DEQ to develop TMDLs for pollutants responsible for each impaired water contained in Virginia's § 303(d) TMDL Priority List and Report.

The Kits Creek stream segment is located in Lunenburg County. It is 4.8 miles in length and begins at the headwaters and continues to the confluence with the North Meherrin River.

The final public meeting on the development of the TMDL for Kits Creek watershed will be held on October 6, 2016, 6 p.m. until 8 p.m., Historic Courthouse, 11435 Courthouse Road, Lunenburg, VA 23952. In case of inclement weather, the alternate meeting date is October 11, 2016, 6 p.m. until 8 p.m., Historic Courthouse, 11435 Courthouse Road, Lunenburg, VA 23952.

The public comment period will begin October 7, 2016, and end November 7, 2016.

An advisory committee to assist in development of this TMDL was convened on June 14, 2016.

A component of a TMDL is the waste load allocation (WLA); therefore, this notice is provided pursuant to § 2.2-4006 A 14 of the Administrative Process Act for any future adoption of the TMDL WLAs.

Information on the development of the TMDLs for the impairments is available upon request. Questions or information requests should be addressed to the DEQ contact person listed below. Please note, all written comments should include the name, address, and telephone number of the person submitting the comments and should be sent to Paula Main, Department of Environmental Quality, 7705 Timberlake Road, Lynchburg, VA 24502, telephone (434) 582-6216, or email paula.main@deq.virginia.gov.

Proposed Consent Order for LCVA Holdings LLC

An enforcement action has been proposed for LCVA Holdings LLC, for violations of the State Water Control Law and regulations at the Chantilly Place Sewage Treatment Plant located in Chantilly, Virginia. The State Water Control Board proposes to issue a consent order to resolve violations associated with the Chantilly Place Sewage Treatment Plant. A description of the proposed action is available at the Department of Environmental Quality office named below or online at www.deq.virginia.gov. Stephanie Bellotti will accept comments by email at stephanie.bellotti@deq.virginia.gov, or postal mail at Department of Environmental Quality, Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, from October 4, 2016, through November 3, 2016.

Proposed Consent Order for Town of Pound

An amendment to enforcement action has been proposed for the Town of Pound for violations of the State Water Control Law at the Pound Wastewater Treatment Plant in Wise County, Virginia. The amendment to consent order changes due dates in the Appendices A and B Schedules of Compliance, but does not alter, modify, or amend any other provision of the existing consent order. Unmodified provisions of the consent order remain in effect by their own terms. A description of the proposed action is available at the Department of Environmental Quality office named below or online at www.deq.virginia.gov. Ralph T. Hilt will accept comments by email at ralph.hilt@deq.virginia.gov, FAX at (276) 676-4899, or postal mail at Department of Environmental Quality, Southwest Regional Office, 355-A Deadmore Street, Abingdon, VA 24210, from October 4, 2016, to November 3, 2016.

Proposed Consent Order for Spotsylvania Courthouse Village II, LLC

An enforcement action has been proposed for the Spotsylvania Courthouse Village II, LLC in Spotsylvania County, Virginia. The consent order describes a settlement to resolve violations of State Water Control Law and the applicable regulations associated with the Spotsylvania Courthouse Village Area C, Phase 1 Project. A description of the proposed action is available at the Department of Environmental Quality office named below or online at www.deq.virginia.gov. Daniel Burstein will accept comments by email at daniel.burstein@deq.virginia.gov, FAX at (703) 583-3821, or postal mail at Department of Environmental Quality, Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, from October 4, 2016, through November 3, 2016.

VIRGINIA CODE COMMISSION

Notice to State Agencies

Contact Information: *Mailing Address:* Virginia Code Commission, General Assembly Building, 201 North 9th Street, 2nd Floor, Richmond, VA 23219; *Telephone:* Voice (804) 786-3591; *Email:* varegs@dls.virginia.gov.

Meeting Notices: Section 2.2-3707 C of the Code of Virginia requires state agencies to post meeting notices on their websites and on the Commonwealth Calendar at http://www.virginia.gov/connect/commonwealth-calendar.

Cumulative Table of Virginia Administrative Code Sections Adopted, Amended, or Repealed: A table listing regulation sections that have been amended, added, or repealed in the *Virginia Register of Regulations* since the regulations were originally published or last supplemented in the print version of the Virginia Administrative Code is available at http://register.dls.virginia.gov/documents/cumultab.pdf.

Filing Material for Publication in the *Virginia Register of Regulations*: Agencies use the Regulation Information System (RIS) to file regulations and related items for publication in the *Virginia Register of Regulations*. The Registrar's office works closely with the Department of Planning and Budget (DPB) to coordinate the system with the Virginia Regulatory Town Hall. RIS and Town Hall complement and enhance one another by sharing pertinent regulatory information.