Bobby Jindal
GOVERNOR

Kathy H. Kliebert
SECRETARY

State of Louisiana

Department of Health and Hospitals

October 19, 2015

TO: The Honorable Bobby Jindal, Governor
The Honorable James D. "Buddy" Caldwell, Attorney General
The Honorable John A. Alario, Jr., President, Louisiana Senate
The Honorable Charles E. "Chuck" Kleckley, Speaker of the House of Representatives
Catherine Brindley, Editor, Louisiana Register

FR: Kathy H. Kliebert, Secretary

RE: **RULEMAKING – EMERGENCY RULE**

In accordance with the provisions of the Administrative Procedure Act, (R.S. 49:950, *et seq.*), the Department of Health and Hospitals (DHH) is renewing the emergency rule that amends Chapter 3 (Water Quality Standards), Chapter 9 (Louisiana Total Coliform Rule), Chapter 11 (Surface Water Treatment Rule) and Chapter 15 (Approved Chemical Laboratories/Drinking Water) of Part XII (Water Supplies) of Title 51 (Public Health−Sanitary Code) of the Louisiana Administrative Code (LAC).

This action is being taken pursuant to the emergency rulemaking authority granted by R.S. 40:4(A)(13) and in accordance with the intent of Act 573 of 2014. Jimmy Guidry, M.D., State Health Officer, and I have determined that this Emergency Rule is necessary to avoid an imminent peril to the public health and safety.

The DHH finds it necessary to renew the emergency rule. The emergency rule makes changes to LAC 51:XII.Chapters 3, 9, 11 and 15 regarding the need to increase the minimum disinfectant residual levels and measurements required to be maintained and taken by public water systems. Among other items addressed, the rule clarifies that daily residual measurements are required at the point of maximum residence time in the distribution system and records of chlorine residual measurements taken in the distribution system, besides from the treatment plant(s) itself, shall be recorded and kept by the public water system for a minimum of 10 years. This necessity comes in light of scientific data and recommendation from the federal Centers for Disease Control and Prevention (CDC) relative to the control of the amoeba parasite which has, thus far, been found in seven public water systems within Louisiana. In certain situations (not including normal drinking of the water), the presence of amoeba parasites in public water systems have been determined by Dr. Guidry and myself to be an imminent peril to the public health and safety. By increasing the minimum disinfectant levels required to be maintained in a public water system's finished water storage tanks and its entire distribution system, this will help to ensure that the parasite will be killed and made non-pathogenic if it should be present in other public water systems which have not been specifically tested for the presence of amoeba. Therefore, the agency hereby renews this emergency

rule effective October 29, 2015 and shall remain in effect for the maximum period allowed under the APA unless rescinded or terminated earlier. The agency intends to initiate regular rulemaking for a final rule by the end of the year and shall publish the rule's Notice of Intent on December 20, 2015. Attached, please find the copy of the emergency rule.

Should you have any questions, please contact Jimmy Guidry, State Health Officer, Louisiana Department of Health and Hospitals, at (225) 342-3417.

KHK:JG:JTL:AL:CEB:laj

Attachment

cc: Jimmy Guidry, State Health Officer
J.T. Lane, Assistant Secretary, OPH
Avis Richard-Griffin, DHH/OPH Rulemaking Liaison Officer
Amanda Laughlin, Acting Chief Engineer, Engineering Services Section, OPH

Approved:

Jimmy Guidry, MD
State Health Officer

Kathy H. Kliebert
Secretary

DEPARTMENT OF HEALTH
AND HOSPITALS
Public Health

PROVIDER IMPACT STATEMENT

Prepared By, Title: Amanda Laughlin	Program/Unit: Engineering Services
Telephone: (225) 342-7499	Address: 628 N. 4th Street, Baton Rouge, LA 70802
Rule Title: Minimum Disinfectant Residual Levels in Public Water Systems ... for publication in the November 20, 2015, issue of the Louisiana Register, and immediate posting to the LA Register's Emergency Rule page before October 29, 2015.	

The proposed Rule should not have any known or foreseeable impact on providers as defined by HCR 170 of 2014 Regular Legislative Session. Per HCR 170, "provider" means an organization that provides services for individuals with developmental disabilities. In particular, there should be no known or foreseeable effect on the:

1. Effect on the staffing level requirements or qualifications required to provide the same level of service;
2. Total direct and indirect effect on the cost to the providers to provide the same level of service; or
3. Overall effect on the ability of the provider to provide the same level of service.

DECLARATION OF EMERGENCY

Department of Health and Hospitals
Office of Public Health

Minimum Disinfectant Residual Levels in Public Water Systems
(LAC 51:XII.311, 355, 357, 361, 363, 367, 903, 1102, 1105, 1113, 1117, 1119, 1125, 1133, 1135, 1139 and 1503)

The state health officer, acting through the Department of Health and Hospitals, Office of Public Health (DHH-OPH), pursuant to the rulemaking authority granted by R.S. 40:4(A) (8) and (13) and in accordance with the intent of Act 573 of 2014, hereby adopts the following emergency rule to prevent an imminent peril to the public health and safety. This rule is being promulgated in accordance with the Administrative Procedure Act (R.S. 49:950, *et seq.*).

The state health officer, through DHH-OPH, finds it necessary to promulgate an emergency rule effective October 29, 2015. This emergency rule increases the minimum disinfection residual levels that are required for public water systems. Among other items addressed as well, the rule increases the number of residual measurements taken monthly by twenty-five (25) percent. The rule clarifies that daily residual measurements are required at the point of maximum residence time in the distribution system and records of chlorine residual measurements taken in the distribution system, besides from the treatment plant(s) itself, shall be recorded and retained by the public water system as required by the National Primary Drinking Water Regulations (as this term is defined in Part XII). This rule is based upon scientific data and recommendations from the federal Centers for Disease Control and Prevention (CDC) relative to the control of the *Naegleria fowleri* (brain-eating amoeba) parasite which has, thus far, been found in seven public water systems within Louisiana. Unless rescinded or terminated earlier, this emergency rule shall remain in effect for the maximum period authorized under state law. This emergency rule may be amended as additional research and science data becomes available.

Title 51
PUBLIC HEALTH—SANITARY CODE
Part XII. Water Supplies

Chapter 3. Water Quality Standards

§311. Records
[formerly paragraph 12:003-2]

A. Complete daily records of the operation of a public water system, including reports of laboratory control tests and any chemical test results required for compliance determination, shall be kept and retained as prescribed in the National Primary Drinking Water Regulations on forms approved by the state health officer. When specifically requested by the state health officer or required by other requirements of this Part, copies of these records shall be provided to the office designated by the state health officer within 10 days following the end of each calendar

month. Additionally, all such records shall be made available for review during inspections/sanitary surveys performed by the state health officer.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8) and 40:5(2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1321 (June 2002), amended LR 30:1195 (June 2004), LR 41:

§355. Mandatory Disinfection [formerly paragraph 12:021-1]

A. Routine, continuous disinfection is required of all public water systems.

1. Where a continuous chloramination (*i.e.*, chlorine with ammonia addition) method is used, water being delivered to the distribution system shall contain a minimum concentration of 0.5 mg/l of chloramine residual (measured as total chlorine).

2. Where a continuous free chlorination method is used, water being delivered to the distribution system shall contain a minimum concentration of free chlorine residual in accordance with the following table:

Table 355.A.2	
pH Value	**Free Chlorine Residual**
up to 7.0	0.5 mg/l
7.0 to 8.0	0.6 mg/l
8.0 to 9.0	0.8 mg/l
over 9.0	1.0 mg/l

a. Table 355.A.2 does not apply to systems using chloramines.

b. pH values shall be measured in accordance with the methods set forth in §1105.D. of this Part.

B. – C. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1326 (June 2002), amended LR 28:2514 (December 2002), LR 35:1240 (July 2009), LR 38:2376 (September 2012), LR 41:

§357. Minimum Disinfection Residuals [formerly paragraph 12:021-2]

A. Disinfection equipment shall be operated to maintain disinfectant residuals in each finished water storage tank and at all points throughout the distribution system at all times in accordance with the following minimum levels:

1. a free chlorine residual of 0.5 mg/l; or,

2. a chloramine residual (measured as total chlorine) of 0.5 mg/l for those systems that feed ammonia.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1327 (June 2002), amended LR 41:

§361. Implementation of Disinfection Requirements

A. A public water system not holding a disinfection variance on November 6, 2013 shall comply with the requirements of §355.A, §357, §367.C, and §367.G of this Part on the later of:

1. February 1, 2014; or

2. the expiration date of any additional time for compliance beyond February 1, 2014 granted by the state health officer. A request for additional time may be submitted in writing prior to February 1, 2014 only, and shall provide detailed justification and rationale for the additional time requested. The state health officer may grant such additional time if significant infrastructure improvements are required to achieve compliance with said requirements.

B. A public water system holding a disinfection variance on November 6, 2013 shall comply with one of the following options by February 1, 2014:

1. implement continuous disinfection that complies with the requirements of §355.A, §357, §367.C, and §367.G of this Part;

2. request additional time for complying with the requirements of §355.A, §357, §367.C, and §367.G of this Part by submitting a written request, if significant infrastructure improvements are required to achieve compliance therewith or extraordinary circumstances exist with regard to the introduction of disinfection to the system. Such written request shall provide detailed justification and rationale for the additional time requested;

3. (This option shall be available only if the public water system's potable water distribution piping is utilized for onsite industrial processes.) notify the state health officer in writing that in lieu of implementing continuous disinfection, the PWS has provided, and will thereafter provide on a quarterly basis, notification to all system users, in a manner compliant with §1907 of this Part, that the system does not disinfect its water. The notification shall state that because the water is not disinfected, the water quality is unknown in regard to the *Naegleria fowleri* amoeba. A public water system selecting this option must sign an acknowledgement form, to be developed by the state health officer, stating that the public water system understands the risks presented by the lack of disinfection and that the public water system maintains responsibility for ensuring the safety of its water for end users; or

4. (This option shall be available only if the public water system's potable water distribution piping is utilized for onsite industrial processes.) request approval of an alternate plan providing water quality and public health protection equivalent to the requirements of §355.A and §357 of this Part. The state health officer may approve such a plan only if it is supported by peer reviewed, generally accepted research and science.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1327 (June 2002), repealed and re-promulgated LR 41:

§363. Revocation of Variances [formerly paragraph 12:021-5]

A. A variance from mandatory disinfection shall be revoked when a public water system has a bacteriological MCL violation. When a variance is revoked, the system shall install mandatory continuous disinfection as stated in §355 of this Part within the times specified in a compliance schedule submitted to and approved by the state health officer. Such schedule shall be submitted within 10 days of receipt of notice of revocation.

B. Except for variances held by qualifying public water systems that comply with §361.B.3 of this Part or receive approval of an alternate plan under §361.B.4 of this Part, any variance concerning the mandatory disinfection requirements of §355 and/or §357 of this Part held by a public water system as of November 6, 2013 shall be automatically revoked on the later of:

1. February 1, 2014;

2. the expiration date of any additional time for compliance granted by the state health officer under §361.B.2 of this Part; or

3. the denial of a request for approval of an alternate plan submitted under §361.B.4 of this Part.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1327 (June 2002), amended LR 41:

§367. Disinfectant Residual Monitoring and Record Keeping [formerly paragraph 12:021-7]

A. Disinfectant Residual Monitoring in Treatment Plant. A public water system (PWS) shall measure the residual disinfectant concentration in water being delivered to the distribution system at least once per day.

B. Disinfectant Residual Monitoring in Distribution System. A PWS shall measure the residual disinfectant concentration within the distribution system:

1. by sampling at the same points in the distribution system and at the same times that samples for total coliforms are required to be collected by the PWS under this Part;

2. by sampling at an additional number of sites calculated by multiplying 0.25 times the number of total coliform samples the PWS is required under this Part to take on a monthly or quarterly basis, rounding any mixed (fractional) number product up to the next whole number. These additional residual monitoring samples shall be taken from sites in low flow areas and extremities in the distribution system at regular time intervals throughout the applicable monthly or quarterly sampling period; and

3. by sampling at the site that represents the maximum residence time (MRT) in the distribution system at least once per day.

C. A PWS shall increase sampling to not less than daily at any site in the distribution system that has a measured disinfectant residual concentration of less than 0.5 mg/l free chlorine or 0.5 mg/l chloramine residual (measured as total chlorine) until such disinfectant residual concentration is achieved at such site.

D. The records of the measurement and sampling required under Subsections A and B of this Section shall be maintained on forms approved by the state health officer and shall be retained as prescribed in the National Primary Drinking Water Regulations, and shall be made available for review upon request by the state health officer.

E. Each PWS shall submit a written monitoring plan to the state health officer for review and approval. The monitoring plan shall be on a form approved by the state health officer and shall include all the total coliform and disinfectant residual monitoring sites required under this Section and §903.A of this Part. Each PWS shall also submit a map of the distribution system depicting all total coliform and disinfectant residual monitoring sites required under this Section. The sites shall be identified along with a 911 street address (if there is no 911 street address, then the latitude/longitude coordinates shall be provided). A PWS in existence as of November 6, 2013 shall submit such a monitoring plan no later than January 1, 2014.

F. Chlorine residuals shall be measured in accordance with the analytical methods set forth in §1105.C of this Part.

G. Where a continuous chloramination (*i.e.*, chlorine with ammonia addition) method is used, a nitrification control plan shall be developed and submitted to the state health officer. A PWS in existence as of November 6, 2013 shall submit such a nitrification control plan no later than March 1, 2014.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8)(13) and 40:5(2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1327 (June 2002), amended LR 30:1195 (June 2004), LR 41:

Chapter 9. Louisiana Total Coliform Rule
[formerly Appendix C]

§903. Coliform Routine Compliance Monitoring
[formerly Coliform Routine Compliance Monitoring of Appendix C]

A. Public water systems shall collect routine total coliform samples at sites which are representative of water throughout the distribution system in accordance with a written monitoring plan approved by the state health officer. Each public water system (PWS) shall submit a written monitoring plan on a form approved by the state health officer. The monitoring plan shall include a minimum number of point of collection (POC) monitoring sites calculated by multiplying 1.5 times the minimum number of samples required to be routinely collected in accordance with Subsections C and D of this Section, rounding any mixed (fractional) number product up to the next whole number. The monitoring plan shall include a map of the system with each POC sampling site identified along with a 911 street address (if there is no 911 street address, then the latitude/longitude coordinates shall be provided). In accordance with requirements of Subsection E of this Section, the plan shall also indicate how the PWS will alternate routine sampling between all of the approved POC sampling sites.

B.–D. …

E. Unless the state health officer specifies otherwise, the public water supply shall collect routine samples at regular time intervals throughout the month and shall alternate routine sampling between all of the approved POC sites. Routine samples shall not be collected from the same POC more than once per month.

F.–G. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8)(13) and 40:5(2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1333 (June 2002), amended LR 41:

Chapter 11. Surface Water Treatment Rule

Subchapter A. General Requirements and Definitions

§1102. Relationship with this Part

A. In those instances where the requirements of this Chapter are stricter than or conflict with the requirements of this Part generally, a public water system utilizing surface water or ground water under the direct influence of surface water (GWUDISW) shall comply with the requirements of this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 41:

§1105. Analytical Requirements

A. Analysis for total coliform, fecal coliform, or HPC which may be required under this Chapter shall be conducted by a laboratory certified by DHH to do such analysis. Until laboratory certification criteria are developed, laboratories certified for total coliform analysis by DHH are deemed certified for fecal coliform and HPC analysis.

B.–B.3. …

C. Public water systems shall conduct analysis for applicable residual disinfectant concentrations in accordance with one of the analytical methods in Table 1.

Table 1

Residual	Methodology	Standard Methods[1]	ASTM Methods[2]	Other Methods
Free Chlorine	Amperometric Titration	4500-Cl D, 4500-Cl D-00	D 1253-03	
	DPD Ferrous Titrimetric	4500-Cl F, 4500-Cl F-00		

Table 1				
Residual	**Methodology**	**Standard Methods[1]**	**ASTM Methods[2]**	**Other Methods**
	DPD Colorimetric	4500-Cl G, 4500-Cl G-00		
	Syringaldazine (FACTS)	4500-Cl H, 4500-Cl H-00		
	On-line Chlorine Analyzer			EPA 334.0[3]
	Amperometric Sensor			ChloroSense[4]
Total Chlorine	Amperometric Titration	4500-Cl D, 4500-Cl D-00	D 1253-03	
	Amperometric Titration (low level measurement)	4500-Cl E, 4500-Cl E-00		
	DPD Ferrous Titrimetric	4500-Cl F, 4500-Cl F-00		
	DPD Colorimetric	4500-Cl G, 4500-Cl G-00		
	Iodometric Electrode	4500-Cl I, 4500-Cl I-00		
	On-line Chlorine Analyzer			EPA 334.0[3]
	Amperometric Sensor			ChloroSense[4]
Chlorine Dioxide	Amperometric Titration	4500-ClO_2 C		
	DPD Method	4500-ClO_2 D		

Table 1				
Residual	**Methodology**	**Standard Methods[1]**	**ASTM Methods[2]**	**Other Methods**
	Amperometric Titration II	4500-ClO_2 E, 4500-ClO_2 E-00		
	Lissamine Green Spectrophotometric			EPA 327.0 Rev 1.1[5]
Ozone	Indigo Method	4500-O_3 B, 4500-O_3 B-97		

1. All the listed methods are contained in the 18th, 19th, 20th, 21st, and 22nd Editions of *Standard Methods for the Examination of Water and Wastewater*; the cited methods published in any of these editions may be used.

2. *Annual Book of ASTM Standards,* Vol. 11.01, 2004 ; ASTM International; any year containing the cited version of the method may be used. Copies of this method may be obtained from ASTM International, 100 Barr Harbor Drive, P.O. Box C700 West Conshohocken, PA 19428-2959.

3. EPA Method 334.0. "Determination of Residual Chlorine in Drinking Water Using an On-line Chlorine Analyzer," August 2009. EPA 815-B-09-013. Available at *http://epa.gov/safewater/methods/analyticalmethods_ogwdw.html* .

4. ChloroSense. "Measurement of Free and Total Chlorine in Drinking Water by Palintest ChloroSense," September 2009. Available at *http://www.nemi.gov* or from Palintest Ltd, 21 Kenton Lands Road, PO Box 18395, Erlanger, KY 41018.

5. EPA Method 327.0, Revision 1.1, "Determination of Chlorine Dioxide and Chlorite Ion in Drinking Water Using Lissamine Green B and Horseradish Peroxidase with Detection by Visible Spectrophotometry," USEPA, May 2005, EPA 815-R-05-008. Available online at*http://www.epa.gov/safewater/methods/sourcalt.html.*

D.–E.1. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8)(13) and 40:5 (5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1337 (June 2002), amended LR 28:2516 (December 2002), LR 41:

Subchapter B. Treatment Technique Requirements and Performance Standards

§1113. Treatment Technique Requirements

A.–A.3 …

4. the total reductions to be required by the DHH may be higher and are subject to the source water concentration of *Giardia lamblia*, viruses, and *Cryptosporidium*;

5. the residual disinfectant concentration in the water delivered to the distribution system is not less than 0.5 mg/l free chlorine or 0.5 mg/l total chlorine for more than 4 hours in any 24 hour period; and

6. the residual disinfectant concentration is not less than 0.5 mg/l free chlorine or 0.5 mg/l total chlorine in more than 5 percent of the samples collected each month from the distribution system for any two consecutive months.

B.–C. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1340 (June 2002), amended LR 28:2518 (December 2002), LR 35:1241 (July 2009), LR 41:

§1117. Non-Filtering Systems

A.–C.1 ...

a. A system shall demonstrate compliance with the inactivation requirements based on conditions occurring during peak hourly flow. Residual disinfectant measurements shall be taken hourly. Continuous disinfectant residual monitors are acceptable in place of hourly samples provided the accuracy of the disinfectant measurements are validated at least weekly in accord with §1109.B or C, as applicable, of this Chapter. If there is a failure in the continuous disinfectant residual monitoring equipment, the system shall collect and analyze a grab sample every hour in lieu of continuous monitoring.

b. ...

2. To avoid filtration, the system shall maintain minimum disinfectant residual concentrations in accordance with the requirements of §355 and §357 of this Part. Performance standards shall be as presented in §1119.B and C of this Chapter.

3.–3.a. ...

b. an automatic shut off of delivery of water to the distribution system when the disinfectant residual level drops below 0.5 mg/l free chlorine residual or 0.5 mg/l chloramine residual (measured as total chlorine).

D.–D.7 ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1341 (June 2002), amended LR 28:2520 (December 2002), LR 35:1242 (July 2009), LR 41:

§1119. Disinfection Performance Standards

A. ...

B. Except as otherwise specified by this Section and Chapter, disinfection treatment shall comply with the minimum standards and requirements set forth in §355.A and §357 of this Part.

C.–C.4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1341 (June 2002), amended LR 28:2522 (December 2002), LR 35:1242 (July 2009), LR 41:

Subchapter C. Monitoring Requirements

§1125. Disinfection Monitoring

A. ...

B. Disinfectant Residual Monitoring at Plant. To determine compliance with the performance standards specified in §1115 or 1119 of this Chapter, the disinfectant residual concentrations of the water being delivered to the distribution system shall be measured and recorded continuously. The accuracy of disinfectant measurements obtained from continuous disinfectant monitors shall be validated at least weekly in accord with §1109.B or C, as applicable, of this Chapter. If there is a failure of continuous disinfectant residual monitoring equipment, grab sampling every two hours shall be conducted in lieu of continuous monitoring, but for no more than five working days following the failure of the equipment. Failure to have the continuous monitoring equipment replaced or repaired and put back into continuous service following the five working days allowed herein shall be deemed to constitute a violation of this Chapter. Systems shall maintain the results of disinfectant residual monitoring for at least 10 years.

C. Small System Disinfectant Residual Monitoring at Plant. Suppliers serving fewer than 3,300 people may collect and analyze grab samples of the water being delivered to the distribution system for disinfectant residual determination each day in lieu of the continuous monitoring, in accordance with Table 4 of this Chapter, provided that any time the residual disinfectant falls below 0.5 mg/l free chlorine or 0.5 mg/l chloramine residual (measured as total chlorine), the supplier shall take a grab sample every two hours until the residual concentrations is equal to or greater than 0.5 mg/l free chlorine or 0.5 mg/l chloramine residual (measured as total chlorine).

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D. Disinfectant Residual Monitoring in Distribution System. The residual disinfectant concentrations in the distribution system shall be measured, recorded, and maintained in accordance with §367.B, C, D and E of this Part. A monitoring plan shall be developed, submitted, reviewed, and approved in accordance with §367.E of this Part.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and R.S. 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1342 (June 2002), amended LR 28:2523 (December 2002), LR 35:1243 (July 2009), LR 41:

Subchapter E. Reporting

§1133. DHH Notification

A.–A.4. ...

5. the disinfectant residual measured from any sample collected from water being delivered to the distribution system is found to be less than 0.5 mg/l free chlorine or 0.5 mg/l chloramine

residual (measured as total chlorine). The notification shall indicate whether the disinfectant residual was restored to at least 0.5 mg/l free chlorine or 0.5 mg/l chloramine residual (measured as total chlorine) within 4 hours;

A.6.–C. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:2525 (December 2002), amended LR 35:1244 (July 2009), LR 41:

§1135. Monthly Report

A.–B.5 …

C. Disinfection Monitoring Results. The monthly report shall include the following disinfection monitoring results.

1. The date and duration of each instance when the disinfectant residual in water supplied to the distribution system is less than 0.5 mg/l free chlorine or 0.5 mg/l chloramine residual (measured as total chlorine) and when the DHH was notified of the occurrence.

2. The following information on samples taken from the distribution system:

a. the number of samples where the disinfectant residual is measured; and

b. the number of measurements where the disinfectant residual is less than 0.5 mg/l free chlorine or 0.5 mg/l chloramine residual (measured as total chlorine).

D.–F.2.a …

AUTHORITY NOTE: Promulgated in accordance with R.S 40: 4 (A)(8)(13) and R.S. 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:2526 (December 2002), amended LR 35:1244 (July 2009), LR 41:

Subchapter F. Public Notification

§1139. Consumer Notification

A. Treatment Technique/Performance Standard Violations. The supplier shall notify persons served by the system whenever there is a failure to comply with the treatment technique requirements specified in §§1113 or 1141, or a failure to comply with the performance standards specified in §§1115, 1117, 1119.A or 1119.C of this Chapter. The notification shall be given in a manner approved by the DHH, and shall include the following mandatory language.

A.1–E. …

AUTHORITY NOTE:Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:2527 (December 2002), amended LR 35:485 (March 2009), LR 35:1246 (July 2009), LR 41:

Chapter 15. Approved Chemical Laboratories/Drinking Water

Subchapter A. Definitions and General Requirements

§1503. General Requirements

A.–C. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 30:1199 (June 2004), amended LR 41:

Interested persons may submit written comments to Amanda Laughlin, Acting Chief Engineer, Engineering Services Section, Office of Public Health, P.O. Box 4489, Baton Rouge, LA 70821-4489. She is responsible for responding to inquiries regarding this Emergency Rule.

Approved and Signed on the _____ day of October, 2015, by:

Jimmy Guidry, M.D., State Health Officer

Kathy H. Kliebert, Secretary, DHH

DECLARATION OF EMERGENCY

Department of Health and Hospitals
Office of Public Health

Minimum Disinfectant Residual Levels in Public Water Systems
(LAC 51:XII.311, 355, 357, 361, 363, 367, 903, 1102, 1105, 1113, 1117, 1119, 1125, 1133, 1135, 1139 and 1503)

The state health officer, acting through the Department of Health and Hospitals, Office of Public Health (DHH-OPH), pursuant to the rulemaking authority granted by R.S. 40:4(A) (8) and (13) and in accordance with the intent of Act 573 of 2014, hereby adopts the following emergency rule to prevent an imminent peril to the public health and safety. This rule is being promulgated in accordance with the Administrative Procedure Act (R.S. 49:950, *et seq.*).

The state health officer, through DHH-OPH, finds it necessary to promulgate an emergency rule effective October 29, 2015. This emergency rule increases the minimum disinfection residual levels that are required for public water systems. Among other items addressed as well, the rule increases the number of residual measurements taken monthly by twenty-five (25) percent. The rule clarifies that daily residual measurements are required at the point of maximum residence time in the distribution system and records of chlorine residual measurements taken in the distribution system, besides from the treatment plant(s) itself, shall be recorded and retained by the public water system as required by the National Primary Drinking Water Regulations (as this term is defined in Part XII). This rule is based upon scientific data and recommendations from the federal Centers for Disease Control and Prevention (CDC) relative to the control of the *Naegleria fowleri* (brain-eating amoeba) parasite which has, thus far, been found in seven public water systems within Louisiana. Unless rescinded or terminated earlier, this emergency rule shall remain in effect for the maximum period authorized under state law. This emergency rule may be amended as additional research and science data becomes available.

Title 51
PUBLIC HEALTH—SANITARY CODE
Part XII. Water Supplies

Chapter 3. Water Quality Standards

§311. Records
[formerly paragraph 12:003-2]

A. Complete daily records of the operation of a public water ~~treatment plants~~system, including reports of laboratory control tests and any chemical test results required for compliance determination, shall be kept and retained ~~for a period of three years~~as prescribed in the National Primary Drinking Water Regulations on forms approved by the state health officer. When specifically requested by the state health officer or required by other requirements of this Part, ~~C~~copies of these records shall be provided to the office designated by the state health officer within 10 days following the end of each calendar month. Additionally, all such records shall be

made available for review during inspections/sanitary surveys performed by the state health officer.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8) and 40:5(2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1321 (June 2002), amended LR 30:1195 (June 2004), LR 41:

§355. Mandatory Disinfection
[formerly paragraph 12:021-1]

A. Routine, continuous disinfection is required of all public water systems ~~other than those under §361.A of this Part~~.

1. Where a continuous chloramination (*i.e.*, chlorine with ammonia addition) method is used, water being delivered to the distribution system shall contain a minimum concentration of 0.5 mg/l of chloramine residual (measured as total chlorine).

2. Where a continuous free chlorination method~~s are~~is used, water being delivered to the distribution system shall contain a ~~the following~~ minimum concentration of free chlorine residual ~~shall be provided leaving the plant~~in accordance with the following table~~.~~:

Table 355.A.2

pH Value	Free Chlorine Residual
up to 7.0	~~0.4~~0.5 mg/l
7.0 to 8.0	0.6 mg/l
8.0 to 9.0	0.8 mg/l
over 9.0	1.0 ~~1.0~~ mg/l

~~1~~a. ~~This t~~Table 355.A.2 does not apply to systems using chloramines.

b. pH values shall be measured in accordance with the methods set forth in §1105.D. of this Part.

B. – C. …

~~D. The effective date for mandatory disinfection for all public water systems serving a population of greater than 500 shall be July 1, 1995.~~

~~E. The effective date of mandatory disinfection for all public water systems serving a population of 500 or less shall be July 1, 1996.~~

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1326 (June 2002), amended LR 28:2514 (December 2002), LR 35:1240 (July 2009), LR 38:2376 (September 2012), LR 41:

§357. Minimum Disinfection Residuals
[formerly paragraph 12:021-2]

A. ~~A~~Disinfection equipment shall be operated to maintain ~~minimum~~ disinfectant residuals ~~of detectable amount of total chlorine shall be maintained~~ in each finished water storage tank and at all points throughout the distribution system at all times in accordance with the following minimum levels: ~~for chlorination methods other than chloramines. For very small water systems a residual of 0.2 mg/l free chlorine is generally required to maintain said systems.~~

1. a free chlorine residual of 0.5 mg/l; or,

2. a chloramine residual (measured as total chlorine) of 0.5 mg/l for those systems that feed ammonia.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1327 (June 2002), amended LR 41:

§361. ~~Variances to Mandatory Disinfection~~Implementation of Disinfection Requirements ~~[formerly paragraph 12:021-4]~~

~~A. A variance may be granted by the state health officer to a public water system, provided the system meets one of the following criteria:~~

~~1. if the public water system has not had a bacteriological maximum contaminant level (MCL) violation for the past three years;~~

~~2. if the public water system, both existing and future installations, can prove that disinfection would create trihalomethane (THM) levels of 0.10 milligrams per liter or greater. The public water supply should explore alternate means of disinfection prior to requesting a variance. A variance can be granted for such systems, provided the system has the required equipment to verify that a detectable amount of chlorine residual is maintained at all times. For systems under 10,000 population served, said systems shall have 90 days after a TTHM (Total Trihalomethane) exceedance of 0.100 milligrams per liter is determined to request said variance;~~

~~3. a variance shall be granted to a public water supply owned by and/or operated by, and/or created as a political subdivision in accordance with Article 6 Section 14 of the Constitution of the State of Louisiana;~~

~~4. in reference to Paragraphs 1, 2, and 3 above, on a case-by- case basis, when a bacteriological MCL occurs and an administrative order shall be or has been issued to that particular water system, the said water system shall be subject to the orders of the state health officer to take whatever remedial actions that are deemed necessary to comply with all applicable rules, regulations, standards, and the Louisiana sanitary code, including, but not limited to, the Louisiana Total Coliform Rule;~~

~~5. [formerly paragraph 12:021-4.1] variances must be requested in writing and must be approved prior to the effective date of the mandatory disinfection requirement as prescribed in §355 of this Part except the new conditions that arise in §361.A.2 above.~~

A. A public water system not holding a disinfection variance on November 6, 2013 shall comply with the requirements of §355.A, §357, §367.C, and §367.G of this Part on the later of:

1. February 1, 2014; or

2. the expiration date of any additional time for compliance beyond February 1, 2014 granted by the state health officer. A request for additional time may be submitted in writing prior to February 1, 2014 only, and shall provide detailed justification and rationale for the additional time requested. The state health officer may grant such additional time if significant infrastructure improvements are required to achieve compliance with said requirements.

B. A public water system holding a disinfection variance on November 6, 2013 shall comply with one of the following options by February 1, 2014:

1. implement continuous disinfection that complies with the requirements of §355.A, §357, §367.C, and §367.G of this Part;

2. request additional time for complying with the requirements of §355.A, §357, §367.C, and §367.G of this Part by submitting a written request, if significant infrastructure improvements are required to achieve compliance therewith or extraordinary circumstances exist with regard to the introduction of disinfection to the system. Such written request shall provide detailed justification and rationale for the additional time requested;

3. (This option shall be available only if the public water system's potable water distribution piping is utilized for onsite industrial processes.) notify the state health officer in writing that in lieu of implementing continuous disinfection, the PWS has provided, and will thereafter provide on a quarterly basis, notification to all system users, in a manner compliant with §1907 of this Part, that the system does not disinfect its water. The notification shall state that because the water is not disinfected, the water quality is unknown in regard to the *Naegleria fowleri* amoeba. A public water system selecting this option must sign an acknowledgement form, to be developed by the state health officer, stating that the public water system understands the risks presented by the lack of disinfection and that the public water system maintains responsibility for ensuring the safety of its water for end users; or

4. (This option shall be available only if the public water system's potable water distribution piping is utilized for onsite industrial processes.) request approval of an alternate plan providing water quality and public health protection equivalent to the requirements of §355.A and §357 of this Part. The state health officer may approve such a plan only if it is supported by peer reviewed, generally accepted research and science.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1327 (June 2002), repealed and re-promulgated LR 41:

§363. Revocation of Variances [formerly paragraph 12:021-5]

A. A variance from mandatory disinfection shall be revoked when a public water system has a bacteriological MCL violation. When a variance is revoked, the system ~~must~~ shall install mandatory continuous disinfection as stated in §355 of this Part within the times specified in a compliance schedule submitted to and approved by the state health officer. Such schedule shall be submitted within 10 days of receipt of notice of revocation. ~~For systems affected under~~

~~§361.A.2 of this Part, revocations because of a bacteriological MCL shall be evaluated on a case-by-case basis by the state health officer.~~

B. Except for variances held by qualifying public water systems that comply with §361.B.3 of this Part or receive approval of an alternate plan under §361.B.4 of this Part, any variance concerning the mandatory disinfection requirements of §355 and/or §357 of this Part held by a public water system as of November 6, 2013 shall be automatically revoked on the later of:

1. February 1, 2014;

2. the expiration date of any additional time for compliance granted by the state health officer under §361.B.2 of this Part; or

3. the denial of a request for approval of an alternate plan submitted under §361.B.4 of this Part.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1327 (June 2002), amended LR 41:

§367. Disinfectant Residual Monitoring and Records Keeping
[formerly paragraph 12:021-7]

A. Disinfectant Residual Monitoring in Treatment Plant. A public water system (PWS) shall measure the residual disinfectant concentration in water being delivered to the distribution system at least once per day.~~Daily records of chlorine residual measurements shall be kept. These records shall be maintained on forms approved by the state health officer and shall be retained for a period of three years.~~

B. Disinfectant Residual Monitoring in Distribution System. A PWS shall measure the residual disinfectant concentration within the distribution system:

1. by sampling at the same points in the distribution system and at the same times that samples for total coliforms are required to be collected by the PWS under this Part;

2. by sampling at an additional number of sites calculated by multiplying 0.25 times the number of total coliform samples the PWS is required under this Part to take on a monthly or quarterly basis, rounding any mixed (fractional) number product up to the next whole number. These additional residual monitoring samples shall be taken from sites in low flow areas and extremities in the distribution system at regular time intervals throughout the applicable monthly or quarterly sampling period; and

3. by sampling at the site that represents the maximum residence time (MRT) in the distribution system at least once per day.

C. A PWS shall increase sampling to not less than daily at any site in the distribution system that has a measured disinfectant residual concentration of less than 0.5 mg/l free chlorine or 0.5 mg/l chloramine residual (measured as total chlorine) until such disinfectant residual concentration is achieved at such site.

D. The records of the measurement and sampling required under Subsections A and B of this Section shall be maintained on forms approved by the state health officer and shall be retained as

prescribed in the National Primary Drinking Water Regulations, and shall be made available for review upon request by the state health officer.

E. Each PWS shall submit a written monitoring plan to the state health officer for review and approval. The monitoring plan shall be on a form approved by the state health officer and shall include all the total coliform and disinfectant residual monitoring sites required under this Section and §903.A of this Part. Each PWS shall also submit a map of the distribution system depicting all total coliform and disinfectant residual monitoring sites required under this Section. The sites shall be identified along with a 911 street address (if there is no 911 street address, then the latitude/longitude coordinates shall be provided). A PWS in existence as of November 6, 2013 shall submit such a monitoring plan no later than January 1, 2014.

F. Chlorine residuals shall be measured in accordance with the analytical methods set forth in §1105.C of this Part.

G. Where a continuous chloramination (*i.e.*, chlorine with ammonia addition) method is used, a nitrification control plan shall be developed and submitted to the state health officer. A PWS in existence as of November 6, 2013 shall submit such a nitrification control plan no later than March 1, 2014.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8)(13) and 40:5(2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1327 (June 2002), amended LR 30:1195 (June 2004), LR 41:

Chapter 9. Louisiana Total Coliform Rule
[formerly Appendix C]

§903. Coliform Routine Compliance Monitoring
[formerly Coliform Routine Compliance Monitoring of Appendix C]

A. ~~Each public water supply must be monitored in accordance with a written sampling plan prepared by the public water supply (PWS) personnel in conjunction with the parish sanitarian. The sampling plan must be reviewed and approved by OPH district/regional engineering staff. The sampling plan should include a map or sketch of the system with the points of collection (POC) identified along with the street address and/or sufficient information for an unfamiliar person to find the sampling site.~~Public water systems shall collect routine total coliform samples at sites which are representative of water throughout the distribution system in accordance with a written monitoring plan approved by the state health officer. Each public water system (PWS) shall submit a written monitoring plan on a form approved by the state health officer. The monitoring plan shall include a minimum number of point of collection (POC) monitoring sites calculated by multiplying 1.5 times the minimum number of samples required to be routinely collected in accordance with Subsections C and D of this Section, rounding any mixed (fractional) number product up to the next whole number. The monitoring plan shall include a map of the system with each POC sampling site identified along with a 911 street address (if there is no 911 street address, then the latitude/longitude coordinates shall be provided). In accordance with requirements of Subsection E of this Section, the plan shall also indicate how the PWS will alternate routine sampling between all of the approved POC sampling sites.

B.–D. …

E. ~~The public water supply must collect samples at regular time intervals throughout the month unless the state staff specifies otherwise or state staff collect the samples.~~ Unless the state health officer specifies otherwise, the public water supply shall collect routine samples at regular time intervals throughout the month and shall alternate routine sampling between all of the approved POC sites. Routine samples shall not be collected from the same POC more than once per month.

F.–G. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8)(13) and 40:5(2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1333 (June 2002), amended LR 41:

Chapter 11. Surface Water Treatment Rule

Subchapter A. General Requirements and Definitions

§1102. Relationship with this Part

A. In those instances where the requirements of this Chapter are stricter than or conflict with the requirements of this Part generally, a public water system utilizing surface water or ground water under the direct influence of surface water (GWUDISW) shall comply with the requirements of this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 41:

§1105. Analytical Requirements

A. Analysis for total coliform, fecal coliform, or HPC which may be required ~~(or, in the case of HPC, optionally allowed in lieu of a disinfectant residual)~~ under this Chapter shall be conducted by a laboratory certified by DHH to do such analysis. Until laboratory certification criteria are developed, laboratories certified for total coliform analysis by DHH are deemed certified for fecal coliform and HPC analysis.

B.–B.3. …

C. Public water systems shall conduct analysis for applicable residual disinfectant concentrations in accordance with one of the analytical methods in Table 1. ~~The methods listed in the following table are contained in the *Standards Methods for the Examination of Water and Wastewater*, 19th Edition.~~

Table 1

Residual	Methodology	Standard Methods[1]	ASTM Methods[2]	Other Methods
Free Chlorine	Amperometric Titration	~~SM~~ 4500-Cl D, 4500-Cl D-00	D 1253-03	

Table 1				
Residual	**Methodology**	**Standard Methods**[1]	**ASTM Methods**[2]	**Other Methods**
	DPD Ferrous Titrimetric	~~SM~~ 4500-Cl F, 4500-Cl F-00		
	DPD Colorimetric	~~SM~~ 4500-Cl G, 4500-Cl G-00		
	Syringaldazine (FACTS)	~~SM~~ 4500-Cl H, 4500-Cl H-00		
	On-line Chlorine Analyzer			EPA 334.0[3]
	Amperometric Sensor			ChloroSense[4]
Total Chlorine	Amperometric Titration	~~SM~~ 4500-Cl D, 4500-Cl D-00	D 1253-03	
	Amperometric Titration (low level measurement)	~~SM~~ 4500-Cl E, 4500-Cl E-00		
	DPD Ferrous Titrimetric	~~SM~~ 4500-Cl F, 4500-Cl F-00		
	DPD Colorimetric	~~SM~~ 4500-Cl G, 4500-Cl G-00		
	Iodometric Electrode	~~SM~~ 4500-Cl I, 4500-Cl I-00		
	On-line Chlorine Analyzer			EPA 334.0[3]
	Amperometric Sensor			ChloroSense[4]
Chlorine Dioxide	Amperometric Titration	~~SM~~ 4500-ClO_2 C		

Table 1				
Residual	**Methodology**	**Standard Methods[1]**	**ASTM Methods[2]**	**Other Methods**
	DPD Method	~~SM~~ 4500-ClO_2 D		
	Amperometric Titration II	~~SM~~ 4500-ClO_2 E, 4500-ClO_2 E-00		
	Lissamine Green Spectrophotometric			EPA 327.0 Rev 1.1[5]
Ozone	Indigo Method	~~SM~~ 4500-O_3 B, 4500-O_3 B-97		

1. ~~Particularly for distribution system monitoring, nothing herein shall be construed to prevent a public water system from determining the residual disinfectant concentrations for free chlorine or combined chlorine by use of *N,N* diethel-*p*-phenylenediamine (DPD) colorimetric test kits.~~All the listed methods are contained in the 18th, 19th, 20th, 21st, and 22nd Editions of *Standard Methods for the Examination of Water and Wastewater*; the cited methods published in any of these editions may be used.

2. *Annual Book of ASTM Standards*, Vol. 11.01, 2004 ; ASTM International; any year containing the cited version of the method may be used. Copies of this method may be obtained from ASTM International, 100 Barr Harbor Drive, P.O. Box C700 West Conshohocken, PA 19428-2959.

3. EPA Method 334.0. "Determination of Residual Chlorine in Drinking Water Using an On-line Chlorine Analyzer," August 2009. EPA 815-B-09-013. Available at *http://epa.gov/safewater/methods/analyticalmethods_ogwdw.html* .

4. ChloroSense. "Measurement of Free and Total Chlorine in Drinking Water by Palintest ChloroSense," September 2009. Available at *http://www.nemi.gov* or from Palintest Ltd, 21 Kenton Lands Road, PO Box 18395, Erlanger, KY 41018.

5. EPA Method 327.0, Revision 1.1, "Determination of Chlorine Dioxide and Chlorite Ion in Drinking Water Using Lissamine Green B and Horseradish Peroxidase with Detection by Visible Spectrophotometry," USEPA, May 2005, EPA 815-R-05-008. Available online at*http://www.epa.gov/safewater/methods/sourcalt.html.*

D.–E.1. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8)(13) and 40:5 (5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1337 (June 2002), amended LR 28:2516 (December 2002), LR 41:

Subchapter B. Treatment Technique Requirements and Performance Standards

§1113. Treatment Technique Requirements

A.–A.3 …

4. the total reductions to be required by the DHH may be higher and are subject to the source water concentration of *Giardia lamblia*, viruses, and *Cryptosporidium*.;

5. the residual disinfectant concentration in the water delivered to the distribution system is not less than 0.5 mg/l free chlorine or 0.5 mg/l total chlorine for more than 4 hours in any 24 hour period; and

6. the residual disinfectant concentration is not less than 0.5 mg/l free chlorine or 0.5 mg/l total chlorine in more than 5 percent of the samples collected each month from the distribution system for any two consecutive months.

B.–C. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:4(A)(8) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1340 (June 2002), amended LR 28:2518 (December 2002), LR 35:1241 (July 2009), LR 41:.

§1117. Non-Filtering Systems

A.–C.1 …

a. A system shall demonstrate compliance with the inactivation requirements based on conditions occurring during peak hourly flow. Residual disinfectant measurements shall be taken hourly. Continuous disinfectant residual monitors are acceptable in place of hourly samples provided the accuracy of the disinfectant measurements are validated at least weekly in accord with §1109.B or C, as applicable, of this Chapter. If there is a failure in the continuous disinfectant residual monitoring equipment, the system shall collect and analyze a grab sample every hour in lieu of continuous monitoring. Systems shall maintain the results of disinfectant residual monitoring for at least three years.

b. …

2. To avoid filtration, the system shall maintain a minimum disinfectant residual concentrations in accordance with the requirements of §355 and §357 of this Partof 0.2 mg/L free chlorine or 0.4 mg/L total chlorine entering the distribution system and maintain a detectable residual throughout the distribution system. Performance standards shall be as presented in §1119.B and C of this Chapter.

3.–3.a. …

b. an automatic shut off of delivery of water to the distribution system when the disinfectant residual level drops below 0.20.5 mg/l free chlorine residual or 0.40.5 mg/Ll chloramine residual (measured as total chlorine) residual.

D.–D.7 …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1341 (June 2002), amended LR 28:2520 (December 2002), LR 35:1242 (July 2009), LR 41:

§1119. Disinfection Performance Standards

A. …

B. Except as otherwise specified by this Section and Chapter, ~~D~~disinfection treatment shall comply with the ~~following performance~~ minimum standards and requirements set forth in §355.A and §357 of this Part.

~~1. Water delivered to the distribution system shall contain a disinfectant residual of not less than 0.2 mg/l free chlorine or 0.4 mg/l total chlorine for more than four hours in any 24 hour period.~~

~~2. The residual disinfectant concentrations of samples collected from the distribution system shall be detectable in at least 95 percent of the samples each month, taken during any two consecutive months. At any sample point in the distribution system, the presence of heterotrophic plate count (HPC) bacteria at concentrations less than 500 colony-forming units per milliliter (cfu/ml) shall be considered equivalent to a detectable disinfectant residual.~~

C.–C.4. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1341 (June 2002), amended LR 28:2522 (December 2002), LR 35:1242 (July 2009), LR 41:

Subchapter C. Monitoring Requirements

§1125. Disinfection Monitoring

A. …

B. Disinfectant Residual Monitoring at Plant. To determine compliance with the performance standards specified in §1115 or 1119 of this Chapter, the disinfectant residual concentrations of the water being delivered to the distribution system shall be measured and recorded continuously. The accuracy of disinfectant measurements obtained from continuous disinfectant monitors shall be validated at least weekly in accord with §1109.B or C, as applicable, of this Chapter. If there is a failure of continuous disinfectant residual monitoring equipment, grab sampling every two hours shall be conducted in lieu of continuous monitoring, but for no more than five working days following the failure of the equipment. Failure to have the continuous monitoring equipment replaced or repaired and put back into continuous service following the five working days allowed herein shall be deemed to constitute a violation of this Chapter. Systems shall maintain the results of disinfectant residual monitoring for at least ~~three~~10 years.

C. Small System Disinfectant Residual Monitoring at Plant. Suppliers serving fewer than 3,300 people may collect and analyze grab samples of the water being delivered to the distribution system for disinfectant residual determination each day in lieu of the continuous monitoring, in accordance with Table 4 of this Chapter, provided that any time the residual disinfectant falls below ~~0.2~~ 0.5 mg/l free chlorine or ~~0.4~~ 0.5 mg/l chloramine residual (measured as total chlorine), the supplier shall take a grab sample every two hours until the residual

concentrations is equal to or greater than ~~0.2~~ 0.5 mg/l free chlorine or ~~0.4~~ 0.5 mg/l chloramine residual (measured as total chlorine).

***

D. Disinfectant Residual Monitoring in Distribution System. The residual disinfectant concentrations in the distribution system shall be measured, recorded, and maintained ~~at least at the same points in the distribution system and at the same time that samples for total coliforms are collected~~in accordance with §367.B, C, D and E of this Part. A monitoring plan shall be developed, submitted, reviewed, and approved in accordance with §367.E of this Part.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and R.S. 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:1342 (June 2002), amended LR 28:2523 (December 2002), LR 35:1243 (July 2009), LR 41:

Subchapter E. Reporting

§1133. DHH Notification

A.–A.4. …

5. ~~there is a failure to maintain a minimum~~the disinfectant residual measured from any sample collected from water being delivered to the distribution system is found to be less than ~~of~~ 0.~~2~~5 mg/l free chlorine or 0.4~~5~~ mg/l chloramine residual (measured as total chlorine). ~~in the water being delivered to the distribution system~~ The notification shall indicate ~~and~~ whether ~~or not~~ the disinfectant residual was restored to at least 0.~~2~~5 mg/l free chlorine or 0.4~~5~~ mg/l chloramine residual (measured as total chlorine) within ~~four~~4 hours;

A.6.–C. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:2525 (December 2002), amended LR 35:1244 (July 2009), LR 41:

§1135. Monthly Report

A.–B.5 …

C. Disinfection Monitoring Results. The monthly report shall include the following disinfection monitoring results.

1. The date and duration of each instance when the disinfectant residual in water supplied to the distribution system is less than ~~0.2~~0.5 mg/l free chlorine or ~~0.4~~0.5 mg/l chloramine residual (measured as total chlorine) and when the DHH was notified of the occurrence.

2. The following information on samples taken from the distribution system:

   a. the number of samples where the disinfectant residual is measured; and

   b. the number of ~~samples where only the heterotrophic plate count (HPC) is measured~~ measurements where the disinfectant residual is less than 0.5 mg/l free chlorine or 0.5 mg/l chloramine residual (measured as total chlorine).~~;~~

~~c. the number of measurements with no detectable disinfectant residual and no HPC is measured;~~

~~d. the number of measurements with no detectable disinfectant residual and HPC is greater than 500 colony forming units per milliliter;~~

~~e. the number of measurements where only HPC is measured and is greater than 500 colony forming units per milliliter.~~

D.–F.2.a …

AUTHORITY NOTE: Promulgated in accordance with R.S 40: 4 (A)(8)(13) and R.S. 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:2526 (December 2002), amended LR 35:1244 (July 2009), LR 41:

Subchapter F. Public Notification

§1139. Consumer Notification

A. Treatment Technique/Performance Standard Violations. The supplier shall notify persons served by the system whenever there is a failure to comply with the treatment technique requirements specified in §§1113 or 1141, or a failure to comply with the performance standards specified in §§1115, 1117, ~~or~~ 1119.A or 1119.C of this Chapter. The notification shall be given in a manner approved by the DHH, and shall include the following mandatory language.

A.1–E. …

AUTHORITY NOTE:Promulgated in accordance with R.S. 40:4 (A)(8)(13) and R.S. 40:5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 28:2527 (December 2002), amended LR 35:485 (March 2009), LR 35:1246 (July 2009), LR 41:

Chapter 15. Approved Chemical Laboratories/Drinking Water

Subchapter A. Definitions and General Requirements

§1503. General Requirements

A.–C. …

~~D. Particularly for distribution system monitoring, nothing herein shall be construed to prevent a public water system from determining the residual disinfectant concentrations for free, combined, or total chlorine by use of DPD colorimetric test kits.~~

~~1. When using a DPD colorimetric test kit and the concentration of chlorine is found to be equivalent to or above the top range limit of such test kit, proper dilution of a fresh sample of water using distilled or deionized water shall be performed and the test repeated to determine the true level of chlorine residual present in the water. This may be accomplished using a 1:2 dilution—1 part fresh sample of water to be tested to a total of two parts of water in the sample vial. For example, 5 ml (1 part) fresh sample of water to be tested, with 5 ml of distilled or deionized water added for a total of 10 ml (2 parts) of water in the vial. The diluted sample is run as usual; however, the result determined is then multiplied by 2 to obtain the true level of chlorine present in the water sample.~~

AUTHORITY NOTE: Promulgated in accordance with R.S. 40: 4 (A)(8)(13) and 40: 5 (2)(3)(5)(6)(17)(20).

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 30:1199 (June 2004), amended LR 41:

Interested persons may submit written comments to Amanda Laughlin, Acting Chief Engineer, Engineering Services Section, Office of Public Health, P.O. Box 4489, Baton Rouge, LA 70821-4489. She is responsible for responding to inquiries regarding this Emergency Rule.

Approved and Signed on the _____ day of October, 2015, by:

Jimmy Guidry, M.D., State Health Officer

Kathy H. Kliebert, Secretary, DHH

~~*(Special Note: The above signature lines are believed to be in accord with R.S. 40:2 which states, in part, that: "No order, rule, or regulation issued by the state health officer shall take effect until it is approved and signed by the secretary." Thus, in my opinion, both the state health officer and the secretary should be signing all Sanitary Code rules to prevent a challenge of this portion of law during the 2-year period allowed under the APA for a rule to be challenged.)*~~