



State of Louisiana
Department of Health and Hospitals
Office of Public Health

December 2, 2015

TO: The Honorable John A. Alario, Jr., President, Louisiana Senate
The Honorable Charles E. "Chuck" Kleckley, Speaker of the House of Representatives
The Honorable David Heitmeier, Chairman, Senate Health and Welfare Committee
The Honorable Scott M. Simon, Chairman, House Health and Welfare Committee

FR: Kathy H. Kliebert, Secretary *Approved for*

RE: **RULEMAKING – NOTICE OF INTENT**

In accordance with the provisions of the Administrative Procedure Act, (R.S. 49:950, *et seq.*), the Department of Health and Hospitals, Office of Public Health (DHH/OPH) proposes to promulgate a rule to finalize the requirements of the emergency rule (the "ER") concerning disinfection of public water systems initially promulgated on November 6, 2013, and presently in effect as a result of subsequent re-declarations. The proposed rule amends Chapter 3 (Water Quality Standards), Chapter 9 (Louisiana Total Coliform Rule), Chapter 11 (Surface Water Treatment Rule), Chapter 15 (Approved Chemical Laboratories/Drinking Water) and Chapter 19 (Public Notification Rule) of Part XII (Water Supplies) of Title 51 (Public Health—Sanitary Code) of the Louisiana Administrative Code (LAC).

This action is being taken in accordance with the intent of Act 573 of 2014 and HCR 54 of 2015. Jimmy Guidry, M.D., State Health Officer, and I have determined that the amendments to Part XII are necessary to protect the public from water provided by public water systems that may be contaminated with the *Naegleria fowleri* (brain-eating amoeba) parasite.

This rule maintains the requirements of the ER and strengthens the monitoring requirements for public water systems using chloramine disinfection. This rule maintains the ER's required minimum disinfection residual level of 0.5 milligrams per liter (mg/L) for public water systems. Furthermore, this rule maintains the ER's twenty-five (25) percent increase to the number of required disinfectant residual measurements taken monthly or quarterly. The ER requires public water systems using surface water source to provide public notice upon the second consecutive month having disinfectant residuals less than 0.5 mg/L in over 5.0 percent of the measurements taken each month. This rule keeps that public notification requirement for surface water systems and extends that public notification requirement to public water systems using ground water. This rule also requires public water systems using chloramines as a disinfectant to monitor for nitrification, and to take corrective action as needed, in accordance with an approved nitrification plan. This nitrification plan requirement is based on DHH's confirmation of nitrification occurring in the distribution systems of the affected public water systems at the time of the above-mentioned amoeba detections. This rule is supported by scientific data and recommendations from the federal Centers for Disease Control and Prevention (CDC) relative to the control of the *Naegleria fowleri* parasite, which has thus

far been found in seven Louisiana public water systems. Maintaining the increased minimum disinfectant levels in a public water system's finished water storage tanks and its entire distribution system, is necessary to help ensure that the parasite will be killed and made non-pathogenic should it be present in any public water systems not yet specifically tested for the presence of amoeba.

The Department plans to publish the notice of intent in the December 20, 2015, issue of the Louisiana Register.

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:AAL:CEB:ceb

Attachment

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

NOTICE OF INTENT

Department of Health and Hospitals Office of Public Health

Sanitary Code / Water Supplies
Minimum Disinfectant Residual Levels in Public Water Systems
(LAC 51:XII.311, 355, 357, 358, 361, 363, 367, 903, 1102, 1105, 1113, 1117, 1119, 1125, 1133,
1135, 1139, 1503, 1903, and 1907)

Under the authority of R.S. 40:4 and 40:5 and in accordance with R.S. 49:950 *et seq.*, the Administrative Procedure Act, notice is hereby given that the state health officer, acting through the Department of Health and Hospitals, Office of Public Health (DHH-OPH), intends to amend Part XII (Water Supplies) of the Louisiana State Sanitary Code (LAC 51). The amendments to Part XII are necessary to protect the public from water provided by public water systems that may be contaminated with *Naegleria fowleri* (brain-eating amoeba) parasite.

In accordance with the intent of Act 573 of 2014 and HCR 54 of 2015, the state health officer, through DHH-OPH, finds it necessary to promulgate a rule that finalizes the requirements of the emergency rule (the “ER”) concerning disinfection of public water systems initially promulgated on November 6, 2013, and presently in effect as a result of subsequent re-promulgation. This rule maintains the requirements of the ER and strengthens monitoring requirements for public water systems using chloramine disinfection. This rule maintains the ER’s required minimum disinfection residual level of 0.5 milligrams per liter (mg/L) for public water systems. Furthermore, this rule maintains the ER’s twenty-five (25) percent increase to the number of required disinfectant residual measurements taken monthly or quarterly. The ER requires public water systems using surface water source to provide public notice upon the second consecutive month having disinfectant residuals less than 0.5 mg/L in over 5.0 percent of the measurements taken each month. This rule keeps that public notification requirement for surface water systems and extends that public notification requirement to public water systems using ground water. This rule also requires public water systems using chloramines as a disinfectant to monitor for nitrification, and to take corrective action as needed, in accordance with an approved nitrification plan. This nitrification plan requirement is based on DHH’s confirmation of nitrification occurring in the distribution systems of the affected public water systems at the time of the above-mentioned amoeba detections. This rule is supported by scientific data and recommendations from the federal Centers for Disease Control and Prevention (CDC) relative to the control of the *Naegleria fowleri* parasite, which has thus far been found in seven public water systems within Louisiana.

For the reasons set forth above, Part XII (Water Supplies) of the Louisiana State Sanitary Code (LAC 51:XII) is proposed to be amended as follows:

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 plant 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, 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 42:

§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 methods are 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:

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

1a. This 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 42](#):

§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 42](#):

§358. Treatment Technique Requirement

A. Unless holding a valid variance from mandatory disinfection, each public water system using ground water as its source of water supply shall incur a treatment technique violation when it fails to comply with the minimum residual disinfectant concentration (0.5 mg/l free chlorine or total chlorine) in more than 5.0 percent of the samples collected each month from the distribution system for any two consecutive months. Upon the determination that a treatment technique violation has occurred, the public water system shall provide Tier 2 public notification in accordance with §1907.

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 42:

§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 THM (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 public water system 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 42:

§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 42:

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

A. Disinfectant Residual Monitoring in Treatment Plant. A public water system 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 public water system 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 public water system 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 public 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 public water system 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 public water system shall submit a monitoring plan to the state health officer for review and approval. The monitoring plan shall be submitted in a format 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. All monitoring sites shall be identified along with a 911 street address, a latitude/longitude coordinate, and a brief description of the site location. A public water system in existence as of November 6, 2013 shall submit such a monitoring plan no later than January 1, 2014 and shall update the monitoring plan as requested by the state health officer and/or as monitoring sites change.

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 or where water that is provided to customers contains chloramines, a nitrification control plan shall be developed and submitted to the state health officer. A public water system in existence as of November 6, 2013 shall submit and comply with such a nitrification control plan no later than January 1, 2017. The plan shall conform to the guidelines contained in industry standards such as the American Water Works Association's M56 Manual on Nitrification and contain at least the following information:

1. At a minimum, the following parameters shall be monitored and recorded in accordance with the following:

a. free ammonia at least once per week in water being delivered to the distribution system (i.e., point of entry) unless an alternate measurement or method is approved by the state health officer.

b. nitrite at least once per quarter and in response to an action level trigger within the distribution system at sites prone to nitrification such as storage tanks and low flow areas.

2. A response plan with expected water quality ranges and action levels to control nitrification and ensure compliance with §357 of this Part.

H. Public water systems utilizing chloramination shall review and update the nitrification control plan required under Subsection G of this Section as requested by the state health officer.

1. In addition, the nitrification control plan and monitoring results shall be retained on-site for a minimum of five years and shall be made available to the state health officer upon request and/or when the public water system fails to comply with §357 of this Part.

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 42](#):

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 monitoring plan approved by the state health officer. Each public water system shall submit a monitoring plan in a format 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, a latitude/longitude coordinate, and a brief description of the site location. In accordance with requirements of Subsection E of this Section, the plan shall also indicate how the public water system 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 42](#):

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 42:

§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.~~

Residual	Methodology	<u>Standard Methods</u> ¹	<u>ASTM Methods</u> ²	<u>Other Methods</u>
Free Chlorine	Amperometric Titration	<u>SM 4500-C1 D₂</u> <u>4500-C1 D-00</u>	<u>D 1253-03</u>	

Table 1

Residual	Methodology	<u>Standard Methods</u>¹	<u>ASTM Methods</u>²	<u>Other Methods</u>
	DPD Ferrous Titrimetric	<u>SM 4500-Cl F₂</u> <u>4500-Cl F-00</u>		
	DPD Colorimetric	<u>SM 4500-Cl G₂</u> <u>4500-Cl G-00</u>		
	Syringaldazine (FACTS)	<u>SM 4500-Cl H₂</u> <u>4500-Cl H-00</u>		
	<u>On-line Chlorine Analyzer</u>			<u>EPA 334.0</u> ³
	<u>Amperometric Sensor</u>			<u>ChloroSense</u> ⁴
Total Chlorine	Amperometric Titration	<u>SM 4500-Cl D₂</u> <u>4500-Cl D-00</u>	<u>D 1253-03</u>	
	Amperometric Titration (low level measurement)	<u>SM 4500-Cl E₂</u> <u>4500-Cl E-00</u>		
	DPD Ferrous Titrimetric	<u>SM 4500-Cl F₂</u> <u>4500-Cl F-00</u>		
	DPD Colorimetric	<u>SM 4500-Cl G₂</u> <u>4500-Cl G-00</u>		
	Iodometric Electrode	<u>SM 4500-Cl I₂</u> <u>4500-Cl I-00</u>		
	<u>On-line Chlorine Analyzer</u>			<u>EPA 334.0</u> ³
	<u>Amperometric Sensor</u>			<u>ChloroSense</u> ⁴
Chlorine Dioxide	Amperometric Titration	<u>SM 4500-Cl O₂</u> C		

Table 1				
Residual	Methodology	<u>Standard Methods</u> ¹	<u>ASTM Methods</u> ²	<u>Other Methods</u>
	DPD Method	SM 4500-ClO ₂ D		
	Amperometric Titration II	SM 4500-ClO ₂ E, <u>4500-ClO₂ E-00</u>		
	<u>Lissamine Green Spectrophotometric</u>			<u>EPA 327.0 Rev 1.1</u> ⁵
Ozone	Indigo Method	SM 4500-O ₃ B, <u>4500-O₃ B-97</u>		

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 diethyl-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 42:

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 5.0 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 42;

§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 Part of 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/L 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 42](#):

§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 42](#):

Subchapter C. Monitoring Requirements

§1125. Disinfection Monitoring

A.-A.5. ...

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 42:

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 0.25 mg/l free chlorine or 0.45 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 0.25 mg/l free chlorine or 0.45 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 42:

§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).;

~~e. 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 42](#):

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 42](#):

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 42](#):

Chapter 19. Public Notification Rule

§1903. Public Notification

A. If a public water system fails to comply with an applicable maximum contaminant level, treatment technique requirement, or analytical requirement as prescribed by this Code or fails to comply with the requirements of any schedule prescribed pursuant to a variance or exemption, or fails to perform any monitoring required by this Code, the public water system shall notify persons served by the system of the failure in a manner prescribed by the *national primary drinking water regulations* (as defined in this Part), §§[358](#), 913, 1139, 1317, 1507, 1509, and the Public Notification Rule (Chapter 19 of this Part), as applicable.

B.-C. ...

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 35:486 (March 2009), amended LR 35:1246 (July 2009), LR 38:2378 (September 2012) [LR 42](#):

§1907. Tier 2 Public Notice

A. When a Tier 2 public notice is required under the National Primary Drinking Water Regulations, §§[358](#), 913 or §1139.C of this Part, the public water system shall, unless directed otherwise by the Office of Public Health in writing, provide public notification in a daily or weekly newspaper serving the area as soon as possible but no later than 14 days after the violation or failure. In addition to newspaper notice, a notice shall also be provided to the consumers by direct mail or hand delivery within 30 days after the violation or failure.

EXCEPTION: When furnishing a notice to a newspaper is deemed not feasible for a non-community water system, continuous posting (in conspicuous places within the area served by the system) and, if available, e-mailing (to students or employees, for example) may be substituted. The notice shall remain posted for a minimum of at least 7 days.

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 35:487 (March 2009), [amended LR 42](#):

Request for Comments

DHH-OPH will conduct a public hearing at 9 am on Monday, January 25, 2016, in Room 118 of the Bienville Building, 628 North 4th Street, Baton Rouge, LA. Persons attending the hearing may have their parking ticket validated when one parks in the 7-story Galvez Parking Garage which is located between N. 6th and N. 5th / North and Main Streets. (cater-corner and across the street from the Bienville Building). All interested persons are invited to attend and present data, views, comments, or arguments, orally or in writing.

Interested persons may submit written comments on the proposed rule. Such comments must be received no later than Friday, January 29, 2016 at COB, 4:30 p.m., and should be addressed to Amanda Laughlin, Acting Chief Engineer, Engineering Services Section, Office of Public Health, P.O. Box 4489, Baton Rouge, LA 70821-4489, or faxed to (225) 342-7303. If comments are to be shipped or hand-delivered, please deliver to the Bienville Building, 628 N. 4th Street - Room 132, Baton Rouge, LA 70802.

Jimmy Guidry, M.D., State Health Officer

Kathy H. Kliebert, Secretary, DHH

NOTICE OF INTENT

Department of Health and Hospitals Office of Public Health

Sanitary Code / Water Supplies
Minimum Disinfectant Residual Levels in Public Water Systems
(LAC 51:XII.311, 355, 357, 358, 361, 363, 367, 903, 1102, 1105, 1113, 1117, 1119, 1125, 1133,
1135, 1139, 1503, 1903, and 1907)

Under the authority of R.S. 40:4 and 40:5 and in accordance with R.S. 49:950 *et seq.*, the Administrative Procedure Act, notice is hereby given that the state health officer, acting through the Department of Health and Hospitals, Office of Public Health (DHH-OPH), intends to amend Part XII (Water Supplies) of the Louisiana State Sanitary Code (LAC 51). The amendments to Part XII are necessary to protect the public from water provided by public water systems that may be contaminated with *Naegleria fowleri* (brain-eating amoeba) parasite.

In accordance with the intent of Act 573 of 2014 and HCR 54 of 2015, the state health officer, through DHH-OPH, finds it necessary to promulgate a rule that finalizes the requirements of the emergency rule (the “ER”) concerning disinfection of public water systems initially promulgated on November 6, 2013, and presently in effect as a result of subsequent re-promulgation. This rule maintains the requirements of the ER and strengthens monitoring requirements for public water systems using chloramine disinfection. This rule maintains the ER’s required minimum disinfection residual level of 0.5 milligrams per liter (mg/L) for public water systems. Furthermore, this rule maintains the ER’s twenty-five (25) percent increase to the number of required disinfectant residual measurements taken monthly or quarterly. The ER requires public water systems using surface water source to provide public notice upon the second consecutive month having disinfectant residuals less than 0.5 mg/L in over 5.0 percent of the measurements taken each month. This rule keeps that public notification requirement for surface water systems and extends that public notification requirement to public water systems using ground water. This rule also requires public water systems using chloramines as a disinfectant to monitor for nitrification, and to take corrective action as needed, in accordance with an approved nitrification plan. This nitrification plan requirement is based on DHH’s confirmation of nitrification occurring in the distribution systems of the affected public water systems at the time of the above-mentioned amoeba detections. This rule is supported by scientific data and recommendations from the federal Centers for Disease Control and Prevention (CDC) relative to the control of the *Naegleria fowleri* parasite, which has thus far been found in seven public water systems within Louisiana.

For the reasons set forth above, Part XII (Water Supplies) of the Louisiana State Sanitary Code (LAC 51:XII) is proposed to be amended as follows:

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 42:

§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:

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 42:

§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 42:

§358. Treatment Technique Requirement

A. Unless holding a valid variance from mandatory disinfection, each public water system using ground water as its source of water supply shall incur a treatment technique violation when it fails to comply with the minimum residual disinfectant concentration (0.5 mg/l free chlorine or total chlorine) in more than 5.0 percent of the samples collected each month from the distribution system for any two consecutive months. Upon the determination that a treatment technique violation has occurred, the public water system shall provide Tier 2 public notification in accordance with §1907.

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 42:

§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 public water system 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 42:

§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 42:

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

A. Disinfectant Residual Monitoring in Treatment Plant. A public water system 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 public water system 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 public water system 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 public 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 public water system 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 public water system shall submit a monitoring plan to the state health officer for review and approval. The monitoring plan shall be submitted in a format 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. All monitoring sites shall be identified along with a 911 street address, a latitude/longitude coordinate, and a brief description of the site location. A public water system in existence as of November 6, 2013 shall submit such a monitoring plan no later than January 1, 2014 and shall update the monitoring plan as requested by the state health officer and/or as monitoring sites change.

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 or where water that is provided to customers contains chloramines, a nitrification control plan shall be developed and submitted to the state health officer. A public water system in existence as of November 6, 2013 shall submit and comply with such a nitrification control plan no later than January 1, 2017. The plan shall conform to the guidelines contained in industry standards such as the American Water Works Association's M56 Manual on Nitrification and contain at least the following information:

1. At a minimum, the following parameters shall be monitored and recorded in accordance with the following:

a. free ammonia at least once per week in water being delivered to the distribution system (*i.e.*, point of entry) unless an alternate measurement or method is approved by the state health officer.

b. nitrite at least once per quarter and in response to an action level trigger within the distribution system at sites prone to nitrification such as storage tanks and low flow areas.

2. A response plan with expected water quality ranges and action levels to control nitrification and ensure compliance with §357 of this Part.

H. Public water systems utilizing chloramination shall review and update the nitrification control plan required under Subsection G of this Section as requested by the state health officer.

1. In addition, the nitrification control plan and monitoring results shall be retained on-site for a minimum of five years and shall be made available to the state health officer upon request and/or when the public water system fails to comply with §357 of this Part.

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 42:

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 monitoring plan approved by the state health officer. Each public water system shall submit a monitoring plan in a format 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, a latitude/longitude coordinate, and a brief description of the site location. In accordance with requirements of Subsection E of this Section, the plan shall also indicate how the public water system 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 42:

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 42:

§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-C1 D, 4500-C1 D-00	D 1253-03	
	DPD Ferrous Titrimetric	4500-C1 F, 4500-C1 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 42:

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 5.0 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 42:

§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 42:

§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 42:

Subchapter C. Monitoring Requirements

§1125. Disinfection Monitoring

A.-A.5. ...

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).

* * *

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 42:

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 42:

§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 42:

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 42:

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 42:

Chapter 19. Public Notification Rule

§1903. Public Notification

A. If a public water system fails to comply with an applicable maximum contaminant level, treatment technique requirement, or analytical requirement as prescribed by this Code or fails to comply with the requirements of any schedule prescribed pursuant to a variance or exemption, or fails to perform any monitoring required by this Code, the public water system shall notify persons served by the system of the failure in a manner prescribed by the *national primary drinking water regulations* (as defined in this Part), §§358, 913, 1139, 1317, 1507, 1509, and the Public Notification Rule (Chapter 19 of this Part), as applicable.

B.-C. ...

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 35:486 (March 2009), amended LR 35:1246 (July 2009), LR 38:2378 (September 2012) LR 42:

§1907. Tier 2 Public Notice

A. When a Tier 2 public notice is required under the National Primary Drinking Water Regulations, §§358, 913 or 1139.C of this Part, the public water system shall, unless directed otherwise by the Office of Public Health in writing, provide public notification in a daily or weekly newspaper serving the area as soon as possible but no later than 14 days after the violation or failure. In addition to newspaper notice, a notice shall also be provided to the consumers by direct mail or hand delivery within 30 days after the violation or failure.

EXCEPTION: When furnishing a notice to a newspaper is deemed not feasible for a non-community water system, continuous posting (in conspicuous places within the area served by the system) and, if available, e-mailing (to students or employees, for example) may be substituted. The notice shall remain posted for a minimum of at least 7 days.

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 35:487 (March 2009), amended LR 42:

Request for Comments

DHH-OPH will conduct a public hearing at 9 am on Monday, January 25, 2016, in Room 118 of the Bienville Building, 628 North 4th Street, Baton Rouge, LA. Persons attending the hearing may have their parking ticket validated when one parks in the 7-story Galvez Parking Garage which is located between N. 6th and N. 5th / North and Main Streets. (cater-corner and across the street from the Bienville Building). All interested persons are invited to attend and present data, views, comments, or arguments, orally or in writing.

Interested persons may submit written comments on the proposed rule. Such comments must be received no later than Friday, January 29, 2016 at COB, 4:30 p.m., and should be addressed to Amanda Laughlin, Acting Chief Engineer, Engineering Services Section, Office of Public Health, P.O. Box 4489, Baton Rouge, LA 70821-4489, or faxed to (225) 342-7303. If comments are to be shipped or hand-delivered, please deliver to the Bienville Building, 628 N. 4th Street - Room 132, Baton Rouge, LA 70802.

Jimmy Guidry, M.D., State Health Officer

Kathy H. Kliebert, Secretary, DHH

DEPARTMENT OF HEALTH & HOSPITALS

POVERTY IMPACT STATEMENT

(To be completed and submitted with the Notice of Intent in accordance with R.S. 49:953 (A)(1)(a)(viii) and 972)

Proposed Rule: Minimum Disinfectant Residual Levels in Public Water Systems (LAC 51:XII.311, 355, 357, 358, 361, 363, 367, 903, 1102, 1105, 1113, 1117, 1119, 1125, 1133, 1135, 1139, 1503, 1903, and 1907)

Completed by: Amanda Laughlin

Telephone Number: (225) 342-7499

Publish in the December 20, 2015 issue of the *Louisiana Register*.

- (1) The effect on household income, assets, and financial security.

The proposed rule cost estimates are based on the compliance status of each public water system (PWS) with the rule. Non-compliant and compliant systems have incurred costs as a result of the emergency rule; however, many of the non-compliant systems are still anticipated to incur additional costs in order to become compliant. Based on the number of compliant systems, it is estimated that 71 percent of the households that are connected to a compliant PWS may incur a monthly cost increase of \$1.22 for this rule. It is estimated that the remaining 29 percent of the households that are connected to a non-compliant PWS may incur a monthly cost increase of \$6.58 for this rule.

- (2) The effect on early childhood development and preschool through postsecondary education development.

There will be no effect on childhood development and preschool through postsecondary education development.

- (3) The effect on employment and workforce development.

The proposed rule will likely cause an increase in competition to hire and retain qualified and certified water plant operators. The rule will require water plant operators to become more knowledgeable of plant and distribution system processes and controls. The competition to hire and retain a competent operator will be higher based on his/her qualifications. This will cause an increase in employment of more knowledgeable and qualified individuals to properly install, operate and maintain required disinfectant residuals levels from the water plant to the far ends of the distribution system.

- (4) The effect on taxes and tax credits.

There will be no effect on taxes and tax credits

- (5) The effect on child and dependent care, housing, health care, nutrition, transportation, and utilities assistance.

There will be no effect on child and dependent care, housing, health care, nutrition, transportation, and utilities assistance.

DEPARTMENT OF HEALTH & HOSPITALS

FAMILY IMPACT STATEMENT

(To be completed and submitted with the Notice of Intent in accordance with R.S. 49:953
(A)(1)(a)(viii) and 972)

Proposed Rule: Minimum Disinfectant Residual Levels in Public Water Systems (LAC 51:XII.311, 355, 357, 358, 361, 363, 367, 903, 1102, 1105, 1113, 1117, 1119, 1125, 1133, 1135, 1139, 1503, 1903, and 1907)

Completed by: Amanda Laughlin

Telephone Number: (225) 342-7499

Publish in the December 20, 2015 issue of the *Louisiana Register*.

- (1) The effect on the stability of the family.
None
- (2) The effect on the authority and rights of parents regarding the education and supervision of their children.
None
- (3) The effect on the functioning of the family.
None
- (4) The effect on the family earnings and family budget.
The rule cost estimates are based on the compliance status of each public water system (PWS) with the rule. Non-compliant and compliant systems have incurred costs as a result of the emergency rule; however, many of the non-compliant systems are still anticipated to incur additional costs in order to become compliant. Based on the number of compliant systems, it is estimated that 71 percent of the households that are connected to a compliant PWS may incur a monthly cost increase of \$1.22 for this rule. It is estimated that the remaining 29 percent of the households that are connected to a non-compliant PWS may incur a monthly cost increase of \$6.58 for this rule.
- (5) The effect on the behavior and personal responsibility of children.
None
- (6) The ability of the family or local government to perform the function as contained in the proposed rule.
None for family.
Local governmental units which own, manage, and/or operate a public water system may determine a need to increase their revenue collections (*i.e.*, increase water bills) to cover the cost to perform the function as contained in this rule.



SMALL BUSINESS ECONOMIC IMPACT STATEMENT AND REGULATORY FLEXIBILITY ANALYSIS FOR ADMINISTRATIVE RULES

Prepared By: **Amanda Laughlin**

DHH OPH (Engineering Services)

Title: **Chief Engineer**

Telephone: (225)342-7499

Address: **628 North 4th Street, Baton Rouge 70821**

Rule Title: **Minimum Disinfectant Residual Levels in Public Water Systems (LAC 51:XII.311, 355, 357, 358, 361, 363, 367, 903, 1102, 1105, 1113, 1117, 1119, 1125, 1133, 1135, 1139, 1503, 1903, and 1907)**

In accordance with the Regulatory Flexibility Act (R.S. 49:965.2-965.8), this Small Business Regulatory Flexibility Analysis and Small Business Economic Impact Statement is being submitted for the rules and regulations proposed for adoption, amendment, or repeal (proposed rule). The summary statement, which is based on the attached worksheet, will be published in the Louisiana Register with the proposed rules and regulations.

SUMMARY STATEMENT

(to be published in the Louisiana Register)

The impact of the proposed rule on small businesses as defined in the Regulatory Flexibility Act has been considered. The proposed action includes revision of the state sanitary code to finalize the requirements of the emergency rule initially promulgated on November 6, 2013 relative to tightening the disinfection of drinking water provided by public water systems in order to control the brain-eating amoeba, *Naegleria fowleri*. The emergency rule is still currently in effect by subsequent re-declarations. The proposed regular rulemaking maintains the requirements of the emergency rule and strengthens monitoring requirements for public water systems that utilize chloramine disinfection. It also strengthens notification of the public by those public water systems whose source of water supply is groundwater when disinfectant residuals are found not to be in compliance with over 5.0 percent of the samples over a two consecutive month period. It is estimated that the proposed rulemaking is not expected to have a significant adverse impact on small businesses. The agency, consistent with health, safety, environmental and economic welfare factors has considered and, where possible, utilized regulatory methods in the drafting of the proposed rule that will accomplish the objectives of applicable statutes while minimizing the adverse impact of the proposed rule on small businesses.

The Office of Public Health's Engineering Services Section does not expect that adoption of the proposed amendments will have a significant economic impact on a substantial number of small business entities.

J. T. Lane
Assistant Secretary
Date

Attachments (Worksheets)

I. REGULATORY FLEXIBILITY ANALYSIS

The Office of Public Health's Engineering Services Section has performed a regulatory flexibility analysis for the revision of Part XII of the state sanitary code. The proposed amendments do not change the existing requirements that are based on the population served by the public water system. The small public water systems have less stringent requirements than larger public water systems. DHH-OPH does not expect that the proposed rule change will have significant economic impact on a substantial number of small businesses.

II. SMALL BUSINESS ECONOMIC IMPACT STATEMENT

A small business economic impact statement has not been prepared because it is estimated that the proposed rule is not expected to have a significant adverse impact on a substantial number of small businesses.

III. NOTICE TO DEPARTMENT OF ECONOMIC DEVELOPMENT

No notice of intent to adopt the proposed rule has been provided to the Department of Economic Development because it is estimated that the adoption and promulgation of the proposed rule is not expected to have a significant adverse impact on small businesses.

PROVIDER IMPACT STATEMENT

Prepared By, Title: Amanda Laughlin	Program/Unit: Engineering Services
Telephone: (225) 342-7499	Address: 628 N. 4 th Street, Baton Rouge, LA 70802
Rule Title: Minimum Disinfectant Residual Levels in Public Water Systems for publication in the <u>December 20, 2015</u> , issue of the <u>Louisiana Register</u> .	

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.