TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY
CHAPTER 631. PUBLIC WATER SUPPLY OPERATION

RULEMAKING ACTION:
PERMANENT final adoption
RULES:
Subchapter 1. Introduction
252:631-1-3 [AMENDED]
Subchapter 3. Operations
252:631-3-3 [AMENDED]
252:631-3-11 [AMENDED]
252:631-3-21 [AMENDED]
AUTHORITY:
Environmental Quality Board, 27A O.S. § 2-2-101; Water Quality Management Advisory Council, 27A O.S. § 2-2-201; 27A O.S.§ 2-3-402 and 27A O.S. §§ 2-6-103, 2-6-303, 2-6-304 and 2-6-501.
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n/a
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Incorporated standards:
40 CFR Parts 141, "National Primary Drinking Water Regulations," and 143, "National Secondary Drinking Water Regulations," except for the following:
(A) 40 CFR §§ 141.400 - 141.405;

(B) 40 CFR §§ 141.600 - 141.605;
(C) 40 CFR §§ 141.620 - 141.629; and
(D) 40 CFR §§ 141.700 - 141.723.

Incorporating rules:

OAC 252:631-1-3

ANALYSIS:

The DEQ proposes to amend OAC 252:631 as follows: (1) to modify the annual fee schedule for public water supply systems; (2) to update its rules concerning the date of the incorporation by reference of certain federal regulations from July 1, 2010, to July 1, 2011; (3) to require a minimum level of disinfection for systems with mandatory disinfection; (4) to establish an alternate minimum free chlorine residual at the point of entry to the distribution system for PWSs that maintain a minimum required log-inactivation of pathogens; (5) to clarify that purchase water systems must meet minimum disinfection standards; (6) to clarify which systems are required to submit the monthly operational report to DEQ; and (7) to replace "standard plate count" as one of the required analysis with "heterotrophic bacteria" when chloramines are used or proposed to be used as the method of disinfection in a distribution system.

CONTACT PERSON:

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PURSUANT TO THE ACTIONS DESCRIBED HEREIN, THE FOLLOWING RULES ARE CONSIDERED FINALLY ADOPTED AS SET FORTH IN 75 O.S., SECTION 308.1(A), WITH AN EFFECTIVE DATE OF JULY 1, 2012:

TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY
CHAPTER 631. PUBLIC WATER SUPPLY OPERATION

SUBCHAPTER 1. INTRODUCTION

252:631-1-3. Adoption of U.S. EPA regulations by reference

The provisions of Parts 141, "National Primary Drinking Water Regulations," and 143, "National Secondary Drinking Water Regulations," of Title 40 of the Code of Federal Regulations (CFR) as published on July 1, ~~2010~~ 2011, and the requirements contained therein are, unless otherwise specified, adopted and incorporated by reference, except for the following:

(1) 40 CFR §§ 141.400 - 141.405;
(2) 40 CFR §§ 141.600 - 141.605;
(3) 40 CFR §§ 141.620 - 141.629; and
(4) 40 CFR §§ 141.700 - 141.723.

SUBCHAPTER 3. OPERATIONS

252:631-3-3. Disinfection requirements

(a) **Mandatory disinfection.** Full-time disinfection is mandatory for:

(1) surface water, groundwater under the direct influence of surface water, and spring water supplies unless an alternative has been approved by the DEQ. Each of these systems shall provide disinfection in accordance with 40 CFR Section 141.72(b) and meet the monitoring requirements contained in 40 CFR Section 141.74(c).

(2) groundwater supplies or purchase water systems whenever ~~the~~ their record of bacteriological tests show:

(A) a persistent presence of Total Coliform; or

(B) a verified Fecal Coliform, or E. Coli MCL exceedance;

(3) PWS systems that purchase water from a public water supply under mandatory disinfection, unless the purchase water system verifies chlorine residuals that are in compliance with (c) or, if chloramines are used, (d) of this Section; and

~~(3)~~ (4) any new well in a system where the initial bacteriological tests of the well do not show a safe record with the DEQ for two (2) consecutive days after completion and testing of the well.

(b) **Level of disinfection.** The disinfection method shall be sufficient to ensure that, at the point of entry into the distribution system, the total treatment processes of the system achieve:

(A) at least 99.9 percent (3-log) inactivation and/or removal of *Giardia lamblia* cysts; and

(B) at least 99.99 percent (4-log) inactivation and/or removal of viruses;

~~(b)~~ (c) **Modification of disinfection methods.** When any change in the disinfection process is contemplated, contact the DEQ. Submittal of an application, including plans, specifications, engineering reports, disinfection profile and disinfection benchmark justifying such a change may be required in order to obtain approval from the DEQ.

~~(c)~~ (d) **Chlorine.** The minimum free chlorine residuals shall be as follows:

(1) **Most distant points.** The minimum free chlorine residual at the most distant points in a water distribution system must be 0.2 mg/l.

(2) **Point of entry.** Free The minimum free chlorine residuals residual at the POE must shall be at least 1.0 milligram per liter mg/l at the POE. For supplies that document they meet or exceed the inactivation requirements in OAC 252:631-3-3(a)(1), the minimum free chlorine residual at the POE shall be 0.2 mg/l. ~~Higher residuals may be required depending on pH, temperature and other characteristics of the water.~~

~~(d)~~ (e) **Chloramines.**

(1) **Prior public notice.** Systems must notify all users of kidney dialysis machines at least one month before introducing chloramines into the distribution system or starting chloramination.

(2) **Chloramines engineering study.** Before changing to chloramines as the residual disinfectant in the distribution system, the system must conduct and submit to the DEQ for approval an engineering study and weekly analyses for at least six (6) weeks prior to and quarterly for one year following such a change of disinfectant. The engineering study and analysis must address the following:

(A) Select at least four (4) sample points for each treatment plant used by the system. At least twenty-five percent (25%) of the sample points must be at locations within the distribution system reflecting the maximum residence time of water in the system; and

(B) Collect samples from the selected points weekly for six (6) weeks and perform the following

analyses before modification of treatment is initiated:

(i) Total coliform;

(ii) Fecal coliform;

(iii) Enterococcus subgroup of the fecal streptococcus group of bacteria; and

(iv) Standard plate counts at 35°C ~~and 20°C~~.

(3) **Continuing testing.** After modification of the treatment process, perform the bacteriological tests for samples collected at each of the selected points at quarterly intervals for one year, and then annually, when samples are collected for total trihalomethane determination. Submit the results to the DEQ.

(4) **Primary Disinfection.** A disinfectant must be added to provide the required log inactivation of *Giardia Lamblia* cysts before ammonia is added.

(5) **Total chlorine.** The minimum total chlorine residual at the most distant points in a water distribution system must be 1.0 mg/l and at least 2.0 mg/l at the POE. Higher residuals may be required depending on pH, temperature and other characteristics of the water.

~~(e)~~ (f) **Other disinfectants.** Iodine or bromine compounds must not be used as a disinfectant. Ozone or ultraviolet light may be used for in-plant treatment or disinfection provided an approved residual disinfectant is added prior to distribution and maintained according to this chapter. Chlorine dioxide may be used as long as the requirements in this chapter are met.

~~(f)~~ (g) **Process control tests for disinfectants.** Control tests must be performed by all systems that disinfect in accordance with procedures approved by the DEQ. Sampling points must be changed regularly so that the system is sampled completely at least once each week.

(1) **Chlorine.** Systems that use chlorine must test for free chlorine and total chlorine residual twice a day in the distribution system.

(2) **Chloramines.**

(A) Systems that use chloramines must test for total chlorine residual twice a day in the distribution system.

(B) Systems that use chloramines must submit yearly standard plate count and enterococcus samples from the distribution system in order to document that no microbiological regrowth is occurring in the distribution system.

(C) The minimum total chlorine residual at the most distant points in a water distribution system must be 1.0 mg/l.

(D) Total chlorine residuals must be at least 2.0 mg/l at the POE. Higher residuals may be required depending on pH, temperature and other characteristics of the water.

(3) **Other disinfectants.**

(A) Systems that use chlorine dioxide, ozone or ultraviolet light must maintain a free chlorine residual, or total chlorine residual, where chloramines are used, in accordance with OAC 252:631-3-3(a) and (b).

(B) Systems that use ozone or chlorine dioxide must perform process control tests in accordance with 40 CFR Section 141.132.

252:631-3-11. Operating records & reports

(a) **Immediate notification to DEQ.** Each system must report to the DEQ by the end of the next business day if any of the following occur:

(1) Waterborne disease outbreak;

(2) Finished water turbidity exceeds one (1) NTU;

(3) Chlorine residual falls below 0.2 mg/l at the POE and whether the residual was restored to at least 0.2 mg/l within four (4) hours;

(4) Nitrate level exceeds 10 mg/l;

(5) Verification of a positive Fecal Coliform or E. Coli sample; and

(6) Exceedance of the Chlorine Dioxide MRDL.

(b) **Records.** All systems must keep a daily record of the results of required process control tests and list the results of microbiological checks on the dates sampled. The records of all laboratory checks and control tests must indicate when, where, and by whom the tests were made. The PWS system must complete and submit the original of the DEQ-approved monthly operational report form to the DEQ with a copy to the appropriate local DEQ representative no later than the tenth (10th) day of the following month.

(c) **Water treatment systems.**

(1) Systems that provide water treatment must keep:

(A) a daily record of the operations performed in the treatment process;

(B) observations, cost and occurrences related to the operation of the plant; and

(C) the control tests and laboratory checks previously described in OAC 252:631-3-10.

(2) In addition, water treatment plants designed for turbidity and microbial removal must keep:

(A) the number of filtered water turbidity samples taken during the month;

(B) the number and percentage of turbidity samples that are less than or equal to the standards; and

(C) the date and value of any turbidity measurements that exceed one (1) and five (5) NTU. Where continuous monitoring is used, measurements must be recorded every four (4) hours during plant operation.

(d) **Groundwater systems.** Operators of groundwater systems must keep a daily record of all well operations, in addition to the process control tests and laboratory checks required for ground water supplies. ~~Community and NTNC systems must submit monthly operational reports to DEQ.~~

(e) **Purchase water systems.** Operators of ~~community~~ systems that purchase water as their sole source and provide supplemental chlorination must submit a monthly operational report to the DEQ of the operation of the system, in addition to required laboratory checks. Monthly reports are not required from purchase water systems that do not add a disinfectant.

(f) **Record keeping.** All records must be available for inspection by the DEQ and maintained for at least ten (10) years unless otherwise specified.

252:631-3-21. Public water supply annual service fees

(a) Each PWS system shall be charged an annual fee ~~(~~[see 27A O.S. § 2-6-306~~)~~].

(b) ~~Beginning July 1, 2008, the~~ A PWS system's annual fee shall be calculated by adding the PWS system's inspection costs and regulatory costs, which are determined ~~using the actual costs of services~~

as follows:

~~(1) Laboratory analysis fees, for parameters analyzed by the State Environmental Laboratory, shall be charged as specified in OAC 252:305, "Laboratory Services";~~

~~(2) Inspection service costs cover the costs equal $36.00 for purchase systems, $72.00 for ground systems or $143.00 for surface systems and groundwater under the direct influence of surface water systems; and~~

(1) **Inspection costs.** Inspection costs cover the cost of inspecting all "inspection points" within a PWS system. Inspection points are identified as "facilities" in the federal PWS database known as SDWIS. The inspection costs portion of a PWS system's annual fee is:

(A) **Purchase water systems.** Purchase water systems are systems that only utilize water purchased from another PWS. These systems are inspected at least once a year. The annual inspection costs for this type of system with:

(i) 1-8 inspection points is $172.00.

(ii) 9-20 inspection points is $349.00.

(iii) 21+ inspection points is $530.00.

(B) **Groundwater systems.** Groundwater systems are systems that utilize at least one ground water source but do not utilize any surface water sources or groundwater sources under the influence of surface water. These systems are inspected at least twice a year. The annual inspection costs for this type of system with:

(i) 1-8 inspection points is $344.00.

(ii) 9-20 inspection points is $698.00.

(iii) 21+ inspection points is $1,060.00.

(C) **Surface water systems and groundwater under the influence of surface water systems.** Surface water systems are systems that utilize at least one surface water source or ground water source under the influence of surface water. These systems are inspected at least four times a year. The annual inspection costs for this type of system with**:**

(i) 1-8 inspection points is $688.00.

(ii) 9-20 inspection points is $1,396.00.

(iii) 21+ inspection points is $2,120.00.

~~(3)~~ (2) **Regulatory cost.** ~~Federal program requirement~~ Regulatory costs ~~for~~ cover tracking, reporting, ~~and~~ enforcement and technical assistance ~~costs (applicable to community systems and non-transient non-community systems) equal $266.00 for purchase systems, $1,167.00 for ground systems or $4,980.00 for surface systems and groundwater under the direct influence of surface water systems~~. The regulatory costs portion of the annual fee for a PWS system shall be calculated by multiplying the total number of sampling events required by the Safe Drinking Water Act each year by $49.62. (c) Each system shall be charged the ~~actual cost for regulatory services~~ annual fee as calculated according to OAC 252:631-3-21(b), except that:

(1) no system shall pay less than ~~a minimum annual fee of $50 for purchase water systems, $75 for ground water systems and $150 for surface water system or less than~~ four cents ($0.04) per service connection per month~~, whichever is greater~~, and

(2) no system shall pay an annual fee increase of more than thirty cents ($0.30) per service connection

per month.

(d) The minimum annual fees listed in OAC 252:631-3-21(c) do not apply to state, federal, tribal, and non-transient non-community systems. ~~These systems shall pay the actual costs of services.~~

(e) Each system will be notified by mail of the fee due from that system by August 1 of each year. The DEQ shall mail such notice to the most recent name and address provided to the DEQ by the PWS system, however, failure to receive such notice by the system shall not operate to waive any fees due to the DEQ. Fees in excess of $1,000.00 may be paid quarterly upon the request of the PWS system.

(f) Fees not received by the due date will be subject to an additional fee of ten percent (10%) of the fee set forth in the invoice.

(g) State appropriations and federal grants will be used to offset the annual fee when possible.

~~(f)~~ (h) To assist in meeting rising costs to the Department of the public water supply program associated with implementation and enforcement of the federal primary drinking water standards, the fees set out in paragraph (b) above shall be automatically adjusted on July 1st every year to correspond to the percentage, if any, by which the Consumer Price Index (CPI) for the most recent calendar year exceeds the CPI for the previous calendar year. The Department may round the adjusted fees up to the nearest dollar. The Department may waive collection of an automatic increase in a given year if it determines other revenues, including appropriated state general revenue funds, have increased sufficiently to make the funds generated by the automatic adjustment unnecessary in that year. A waiver does not affect future automatic adjustments.

(1) Any automatic fee adjustment under this subsection may be averted or eliminated, or the adjustment percentage may be modified, by rule promulgated pursuant to the Oklahoma Administrative Procedures Act. The rulemaking process may be initiated in any manner provided by law, including a petition for rulemaking pursuant to 75 O.S. § 305 and OAC 252:4-5-3 by any person affected by the automatic fee adjustment.

(2) If the United States Department of Labor ceases to publish the CPI or revises the methodology or base years, no further automatic fee adjustments shall occur until a new automatic fee adjustment rule is promulgated pursuant to the Oklahoma Administrative Procedures Act.

(3) For purposes of this subsection, "Consumer Price Index" or "CPI" means the Consumer Price Index - All Urban Consumers (U.S. All Items, Current Series, 1982-1984=100, CUUR0000SA0) published by the United States Department of Labor. The CPI for a calendar year is the figure denoted by the Department of Labor as the "Annual" index figure for that calendar year.