O.A.C. § 252:631-3-3

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Oklahoma Administrative Code > ***TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY*** > ***CHAPTER 631. PUBLIC WATER SUPPLY OPERATION*** > ***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 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

(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 2 consecutive days after completion and testing of the well.

(b) 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) 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. The minimum free chlorine ***residual*** at the POE shall be at 1.0 mg/l. For supplies that document they meet or exceed the inactivation requirements in 252:631-3-3(a)(1), the minimum free chlorine ***residual*** at the POE shall be 0.2 mg/l.

(d) 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 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 4 sample points for each treatment plant used by the system. At least 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 6 weeks and perform the following analyses using the methods approved in *40 CFR 141.74(a)(1)* before modification of treatment is initiated:

(i) Total coliform;

(ii) Fecal coliform; and

(iii) Heterotrophic Plate Count.

(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) Other ***disinfectants***. Iodine or bromine compounds shall not be used as a ***disinfectant***. Ozone, chlorine dioxide, or ultraviolet light may be used for in-plant treatment or disinfection provided chlorine or chloramine ***residual*** is maintained according to this Section.

Statutory Authority

CHAPTER AUTHORITY:

27A O.S., §§ 1-3-101,*2-2-101*,*2-2-201*, and*2-6-301*et seq.

History

SOURCE:
Added at 17 Ok Reg 1987, eff 6-12-00; Amended at 18 Ok Reg 1999, eff 6-11-01; Amended at 20 Ok Reg 61, eff 10-31-02 (emergency); Amended at 20 Ok Reg 1153, eff 6-1-03; Amended at 25 Ok Reg 2305, eff 7-11-08; Added at 29 Ok Reg 1051, eff 7-1-12; Amended at 30 Ok Reg 1095, eff 7-1-13; Amended at 31 Ok Reg 1311, eff 9-12-14.

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