

Public Notice of Rules

Summary:

New rules for public water supplies were drafted using the Oklahoma DEQ rules as a model. These rules will apply to any public water supply located within the 14 county jurisdictional area of the Cherokee Nation on trust or restricted lands or otherwise subject to regulation by the CN Environmental Protection Commission, such as the wells in Kenwood. A permit will be required to construct or operate a public water supply facility.

Legislative Authority:

These rules were developed under the authority of the Environmental Quality Code, Title 63 CNCA Section 101 et seq.

Public Comments:

Public comments concerning the rules should be addressed to:

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Copies:

Copies of the rules may be viewed at:

<http://www.cherokee.org/home.aspx?section=commissions&commission=EPG>

Meeting:

In accordance with the Administrative Procedures Act the rules listed below will be scheduled for discussion and approval at the Environmental Protection Commission Meeting August 17th, 2007, at 9:30 a.m. at 206 E. Allen Road, Tahlequah, or at such time as that meeting may be rescheduled.

CHEROKEE NATION ENVIRONMENTAL PROTECTION COMMISSION RULES

**CHAPTER 19.
PUBLIC WATER SUPPLY**

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SUBCHAPTER 1. INTRODUCTION

Section

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- 19-103. Adoption of U.S. EPA regulations by reference
- 19-104. Adoption of state construction standards by reference.

19-101. Purpose

- (a) This chapter sets operation and construction standards for Public Water Supply systems.
- (b) This chapter applies to any person or entity including, but not limited to, any state or federal facility that operates a Public Water Supply system in Indian Country under the jurisdiction of the Cherokee Nation.

19-102. Definitions

In addition to terms defined in Title 63 of the Cherokee Nation Environmental Quality Code, the following words or terms, when used in this Chapter, shall have the following meaning unless the context clearly indicates otherwise:

“Approved laboratory” means a laboratory certified or approved by EPA, DEQ, or an EPA approved third party certification program (such as the National Sanitation Foundation, and Drinking Water Accreditation Program).

“Code” means the Cherokee Nation Environmental Quality Code, 63 CNCA §§50 et seq.

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

“EPC” means the Cherokee Nation Environmental Protection Commission.

“Groundwater under the direct influence of surface water” means any water beneath the surface of the ground with significant occurrence of insects or other macroorganisms, algae, or large diameter pathogens such as Giardia Lamblia or Cryptosporidium, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH that closely correlate to climatological or surface water conditions.

“Laboratory checks” means chemical, radiochemical, physical, bacteriological and biological tests on water samples made in an approved laboratory.

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“Maximum contaminant level (MCL)” means the maximum permissible level of a contaminant in a Public Water Supply system that has been determined to be necessary to safeguard the public health as specified in these regulations. MCL are the same as primary drinking water standards.

“Maximum residual disinfectant level (MRDL)” means the level of a disinfectant added for water treatment that may not be exceeded at the consumer’s tap without an unacceptable possibility of adverse health effects. Compliance with the MRDL will be determined using the disinfectant concentration measured at the time Total Coliform Rule (TCR) samples are collected.

“Nation” means the Cherokee Nation.

“Operating records and reports” means the daily record of data connected with the operation of the system compiled in a monthly report.

“Point of entry (POE)” means the point at which a source or combination of sources enters the distribution system.

“Primary Drinking Water Standards” means the same as MCL.

“Protected groundwater free of sanitary defects” means a ground water source that is properly designed and permitted, practices full-time chlorination, and is properly operated and maintained as evidenced by no critical deficiencies on inspections.

“Public Water Supply (PWS) system” means a system, whether publicly or privately owned, which supplies water under pressure to the public through pipes or other constructed conveyances whether receiving payment for same or not. Multi-family dwellings, which are constructed, inspected, and maintained under approved plumbing codes, purchase water from a permitted water system, do not provide treatment, and do not resell water, are not classified as a Public Water Supply system. The following are the categories of Public Water Supply systems:

- (A) “Community water system” means any PWS system that serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year round residents.
- (B) “Non-community water system” means any PWS system that serves an average of at least twenty-five (25) individuals at least sixty (60) days per year but is neither a community water system nor a non-transient non-community water system.
- (C) “Non-transient non-community (NTNC) water system” means any PWS system that is not a community water system and that regularly serves at least twenty-five (25) of the same persons over six months per year.
- (D) “Minor water system” means any other PWS system not included in (A), (B), or (C) of this definition.

“Residual disinfectant concentration” means the concentration of disinfectant measured in milligrams per liter (mg/l) in a representative sample of water.

“Secondary standard” means a non-mandatory guideline that has been determined to be desirable to provide acceptable drinking water.

“Slow sand filtration” means a process involving passage of raw water through a bed of sand at low velocity (generally less than 50 gallons/sq.ft./day) resulting in substantial particulate removal by physical and biological mechanisms.

“Source” means any lake, stream, spring or groundwater supply that is used as treated or untreated water for a PWS system.

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“Total coliform positive sample” means a sample in which one or more coliform organisms are found.

“Treatment technique” means the practice of a PWS system to properly remove pathogens and total organic carbon.

“Turbidity” means the amount of suspended material in water as measured by Nephelometric Turbidity Units (NTU).

“Water Treatment” means the act of removing contaminants from source water or adjusting water quality by the addition of chemicals, filtration, and other processes, thereby making the water safe for human consumption.

19-103. Adoption of U.S. EPA regulations by reference.

- (a) The provisions of Part 141, “National Primary Drinking Water Regulations,” and Part 143, “National Secondary Drinking Water Regulations,” of Title 40 of the Code of Federal Regulations (CFR) as published on July 1, 2005 are adopted and incorporated by reference unless otherwise specified in this Chapter or the Code.
- (b) As used in the incorporated federal regulations, unless the context clearly indicates otherwise, the term “state” or “tribe” is synonymous with the Cherokee Nation.

19-104. Adoption of state construction regulations by reference.

- (a) The construction standards applicable to public water supplies, contained in lawfully promulgated rules of the Oklahoma Department of Environmental Quality, are hereby incorporated by reference unless otherwise specified.
- (b) The EPC Administrator may grant a minor variance upon proper application, provided such variance in the Administrator’s sole discretion is determined to provide an equal or greater amount of treatment, safety and operational efficiency as the existing construction standard and the risk to public health and safety and the environment is minimal. In granting such a variance, the Administrator may impose any conditions and terms deemed appropriate.
- (c) A request for a major deviation from construction standards shall be made in writing, accompanied by engineering plans and appropriate documentation, to the Administrator. The Administrator shall develop a recommendation and shall present the request to the EPC. The request shall be granted or denied by the EPC. There will be no right to appeal the EPC’s decision.

SUBCHAPTER 3. OPERATIONS

Section

19-301. PWS criteria

19-302. Laboratory approval

19-303. Disinfection requirements

19-304. Validation of data

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- 19-306. Disinfection profiling and benchmarking
- 19-308. Public notice requirements
- 19-309. Annual consumer confidence reports
- 19-310. Process control tests
- 19-311. Operating records & reports
- 19-312. Control of lead and copper
- 19-313. Disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors
- 19-315. Plugging abandoned wells
- 19-316. Flushing of dead-ends
- 19-317. Water system connections
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- 19-319. Wastewater
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19-301. PWS criteria

- (a) All systems must properly operate and maintain each unit to provide treatment of the water in accordance with the purpose for which the units were designed and according to the terms of their permits. Employees must be trained in the proper operation and maintenance of the system.
- (b) Public water supply systems must comply with all applicable Primary Drinking Water Standards in 40 CFR Part 141, which includes, but is not limited to, the following:
 - (1) Microbiological standards in 40 CFR Section 141.63;
 - (2) Inorganic chemicals standards in 40 CFR Section 141.11 and Section 141.62;
 - (3) Organic chemical standards in 40 CFR Section 141.61;
 - (4) Disinfectant byproduct standards in 40 CFR Section 141.12 and Section 141.64;
 - (5) Radiochemical standards in 40 CFR Section 141.15 and Section 141.16;
 - (6) Turbidity standards in 40 CFR Section 141.13; and
 - (7) Residual disinfectant level standards in 40 CFR Section 141.65.
- (c) Public water supply systems must comply with all applicable monitoring and analytical requirements in 40 CFR Part 141, which includes, but is not limited to, the following:
 - (1) Coliform requirements in 40 CFR Section 141.21;
 - (2) Turbidity requirements in 40 CFR Section 141.22;
 - (3) Inorganic chemicals requirements in 40 CFR Section 141.23;
 - (4) Organic chemical requirements in 40 CFR Section 141.24;
 - (5) Radiochemical requirements in 40 CFR Section 141.25 and Section 141.26;
 - (6) Total trihalomethane requirements in 40 CFR Section 141.30;
 - (7) Lead and copper requirements in 40 CFR Section 141, Subpart I;
 - (8) Unregulated contaminant requirements in 40 CFR Section 141.40;
 - (9) Sodium requirements in 40 CFR Section 141.41;
 - (10) Corrosivity requirements in 40 CFR Section 141.42;
 - (11) Filtration and disinfectant requirements in 40 CFR Section 141.74; and
 - (12) Disinfectant residuals and disinfectant by-product requirements in 40 CFR, Section

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141.30 and 40 CFR Subpart

- (d) Systems which operate on an intermittent or seasonal basis shall submit bacteriological samples on two consecutive days prior to placing the system into operation. The system can be placed into operation only after the Nation approves the sample results.

19-302. Laboratory approval

Compliance analyses for coliform, inorganics, organics, radioactivity and corrosivity contaminants must be performed in a laboratory approved by the EPA or the Nation. The Nation may approve laboratories certified by the DEQ. Laboratory certification must be based upon Safe Drinking Water Act requirements and must be specific to each parameter analyzed.

Testing required for compliance with turbidity treatment technique, disinfectant residual, temperature and pH requirements, and process control tests, may be performed by a laboratory operator certified by DEQ or otherwise approved by the Nation.

The Nation may approve a laboratory for the purposes of testing for compliance with primary drinking water standards upon written submittal of a request for approval from the owner of the laboratory and upon proof satisfactory to the Nation that the laboratory:

- (1) possesses sufficient personnel, equipment, and facilities;
- (2) implements an adequate quality control and quality assurance program;
- (3) owns and will continue to own sufficient managerial and financial resources to continuously comply with and implement all requirements of "Standard Methods for the Examination of Water and Wastewater" in accordance with the current "Manual for the Certification of Laboratories Analyzing Drinking Water;" and
- (4) transmits the analyses to the Nation in a form and manner that is acceptable to the Nation.

19-303. 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 EPC. Each system must provide disinfection in accordance with 40 CFR Sections 141.72(b) and 141.74(c);
- (2) groundwater supplies or purchase water systems whenever the record of bacteriological tests show:
 - (A) a persistent presence of Total Coliform; or
 - (B) a verified Fecal Coliform, or E. Coli MCL exceedance
- (3) any new well in a system where the initial bacteriological tests of the well do not show a safe record with the EPC for two (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 EPC. 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 EPC.

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(c) Chlorine.

- (1) The minimum free chlorine residual at the most distant points in a water distribution system must be 0.2 mg/l.
- (2) Free chlorine residuals must be at least 1.0 milligram per liter at the POE. Higher residuals may be required depending on pH, temperature and other characteristics of the water.

(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 EPC 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) Fecal streptococci; 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 EPC.

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

(1) Chlorine.

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

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- (B) The minimum free chlorine residual at the most distant points in a water distribution system must be 0.2 mg/l.
- (C) Free chlorine residuals must be at least 1.0 mg/l at the POE. Higher residuals may be required depending on pH, temperature and other characteristics of the water.
- (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 Fecal Streptococci 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 19-303(a) and (b).
 - (B) Systems that use ozone or chlorine dioxide must perform process control tests in accordance with 40 CFR Section 141.132.

19-304. Validation of data

Notwithstanding other provisions of this Chapter, samples that are not properly collected or submitted, not collected by trained and authorized personnel, not analyzed in an approved laboratory, or samples that do not represent the distribution system must not be used to determine compliance with these regulations. Total coliform positive samples, which are due to improper analysis, domestic or other non-distribution plumbing problems or due to circumstances or conditions that do not reflect water quality in the distribution system must not be counted toward meeting minimum monitoring requirements. The EPC must document the determination that there are circumstances or conditions that do not reflect water quality in the distribution system. A sample that produces a turbid culture in the absence of gas production, produces a turbid culture in the absence of an acid reaction, exhibits confluent growth, or produces colonies too numerous to count must be invalidated and replaced with another sample within twenty-four (24) hours of notification by the Nation.

19-306. Disinfection profiling and benchmarking

PWS Systems must develop disinfection profiles and benchmarks in accordance with 40 CFR Part 141, Subpart P.

19-308. Public notice requirements

PWS systems must provide public notice in accordance with 40 CFR Part 141, Subparts D and Q.

19-309. Annual consumer confidence reports

PWS systems must prepare and deliver an annual Consumer Confidence Report in accordance with 40 CFR Part 141, Subpart O.

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19-310. Process control tests

Control tests must be performed in accordance with procedures approved by the EPC.

(1) **Surface water, groundwater under the direct influence of surface water, and springs.**

(A) Systems that use coagulation, settling, softening or filtration must do the following chemical control tests on the filtered water twice a day, record the results on a report form provided or approved by the EPC, and submit the form to the EPC each month, with a copy to the EPC representative:

- (i) Alkalinity - Phenolphthalein (P);
- (ii) Alkalinity - Total;
- (iii) Hardness (where softening is used);
- (iv) pH value; and
- (v) Stability to calcium carbonate (once per day);

(B) Perform Jar tests as needed to determine the optimum coagulant dosages for plant control and operation to meet turbidity requirements.

(C) Turbidity samples must be collected and analyzed in accordance with 40 CFR Part 141, Subparts H and P.

(2) **Groundwater supplies.** The following tests are required for community and non-transient non-community water systems utilizing groundwater as a source. Test results must be listed as indicated on the appropriate forms and submitted to the EPC:

(A) Static level and pumping level of each well must be determined quarterly;

(B) Alkalinity, pH, and stability must be determined at least monthly for community systems and at least quarterly for non-transient non-community water systems; and

(C) Where chlorination is practiced, determine the chlorine residual twice daily in the distribution system and once daily at the POE.

(3) **Purchase water systems.** Purchase water community systems that provide supplemental chlorination must determine the chlorine residual twice daily in the distribution system and once daily at the POE.

(4) **Special tests.**

(A) Systems that remove iron or manganese must test the raw and finished water weekly for those metals.

(B) Systems that treat for the removal of regulated contaminants must monitor the raw and finished water for those contaminants daily in addition to collecting compliance samples.

(C) Threshold odor and other tests may be required by the EPC based on local conditions.

(5) **Fluoridation.** Where fluoridation is practiced, the system must:

(A) analyze the water twice a day, both before and after fluoridation;

(B) forward a copy of the analytical report to the EPC monthly and keep a copy at the plant; and

(C) submit a sample of treated water to an EPC-Approved laboratory, for analysis of fluoride content every month.

19-311. Operating records & reports

(a) **Immediate notification to EPC.** Each system must report to the EPC 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 for surface water systems serving a

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population greater than 10,000 and five (5) NTU for surface water systems serving a population of 10,000 or less. After January 1, 2005, all surface water systems must report if the 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 EPC-approved monthly operational report form to the EPC with a copy to the appropriate EPC 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 19-310.

(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 EPC.

(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 EPC 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) **Reporting of additional monitoring.** Additional monitoring, listed in Appendix B, must be reported to EPC in accordance with 40 CFR Part 141, Subpart C at the end of each monitoring period.

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

19-312. Control of lead and copper

PWS systems must collect and report the results of all lead and copper samples in accordance with 40 CFR Part 141, Subpart I within ten (10) days after the end of the monitoring period.

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19-313. Disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors

Systems must monitor and report disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors in accordance with 40 CFR Part 141 Subpart C and L.

19-315. Plugging abandoned wells

PWS systems must plug all unused or dry water wells, water test wells, or water test holes promptly, according to the well-plugging rules of the Oklahoma Water Resources Board, to protect the water-bearing formation.

19-316. Flushing of dead-ends

PWS systems must avoid dead-ends in the distribution system. Where a dead-end main exists, it must be equipped with a valve or other arrangement for flushing. Flush until the water is clear or a chlorine residual is found. Flush every ninety (90) days or more often where conditions require.

19-317. Water system connections

PWS systems must not allow the connection of a new customer without an approved sewage disposal system.

19-318. Operator certification

All community and non-transient non-community PWS systems are required to have operators with appropriate training and certifications as deemed appropriate by the EPC.

19-319. Wastewater

(a) **Sanitary waste.** All sanitary and laboratory chemical wastewater must be discharged to a sanitary sewer collection system or to an approved on-site wastewater disposal system.

(b) **Treatment plant wastewater and sludge.** Disposal of wastewater and residuals from treatment units (filter backwash water, clarifier blow-off, etc.) must be according to the Code and applicable rules of the EPC relating to discharges and other disposal methods.

19-320. Water pressure

All PWS systems must maintain a water pressure of at least twenty-five (25) psi at all service connections.

19-321. Public water supply annual service fees

(a) Each PWS system shall be charged an annual fee.

(b) The annual fee shall be established by the EPC based on actual costs of services, such as laboratory analysis fees, inspections and program requirement costs for tracking, reporting, and enforcement and technical assistance.

(c) 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.

(d) Each system will be notified by mail of the fee due. The EPC shall mail such notice to the most recent name and address provided to the EPC by the PWS system, however, failure to receive such notice by the system shall not operate to waive any fees due to the EPC.

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19-322. Security

A PWS system shall provide:

- (1) fencing with locking gates;
- (2) locks on access manholes;
- (3) locks on wellheads and well houses; and
- (4) other necessary precautions to prevent vandalism, pilfering, trespass, and sabotage.

SUBCHAPTER 5. MINOR WATER SYSTEMS

Section

19-501. General

19-502. Surface water, ground water under the direct influence of surface water, and springs

19-503. Groundwater supplies

19-504. Special tests

19-505. Security

19-506. General

19-501. General

- (a) Minor water systems must submit a minimum of one (1) bacteriological sample per year. If the sample is coliform positive, then the system must continue to submit bacteriological samples until a coliform negative sample is obtained.
- (b) Systems, which operate on an intermittent or seasonal basis, shall submit bacteriological samples on two (2) consecutive days prior to placing the system into operation. The system can be placed into operation only after the samples are shown to be safe and authorization to operate is given by the EPC office.
- (c) Maintain a water pressure of at least twenty five (25) psi at all service connections.
- (d) Where chlorination is practiced, a chlorine residual of at least 1 mg/l must be maintained at the POE and at least 0.2 mg/l at the farthest point in the distribution system. The residual disinfectant concentration at the POE and at the farthest point in the distribution system must be monitored once per day.
- (e) Keep records of all operational requirements at the facility.

19-502. Surface water, ground water under the direct influence of surface water, and springs

(a) Slow sand filtration.

- (1) Finished water turbidity must be measured once per day while the plant is in operation.
- (2) The finished water turbidity must be below one (1.0) NTU in ninety-five percent (95%) of monthly samples.
- (3) The finished water turbidity must never exceed five (5) NTU.

(b) Conventional filtration. Conventional filtration systems that use coagulation, settling, softening, and filtration must do the following while the plant is in operation:

- (1) Finished water turbidity must be measured once per day.

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- (2) The finished water turbidity must be below 0.5 NTU in ninety-five percent (95%) of monthly samples.
- (3) The finished water turbidity must never exceed five (5) NTU. If the turbidity exceeds five, the EPC must be notified immediately.
- (4) Perform the following process control tests on the filtered water once a day:
 - (A) Alkalinity - Phenolphthalein (P);
 - (B) Alkalinity - Total;
 - (C) Hardness (where softening is used); and
 - (D) pH value;
- (5) Perform Jar tests as needed to determine the optimum coagulant dosages for plant control and operation to meet turbidity requirements.

19-503. Groundwater supplies

The following tests are required:

- (1) Alkalinity and pH must be determined at least quarterly; and
- (2) Those systems located between 100 and 300 feet from gasoline storage tanks require quarterly VOC monitoring. If the facility has three (3) years of compliant samples, the monitoring may be reduced to annual monitoring.

19-504. Special tests

Systems that treat for the removal of regulated contaminants must monitor for those contaminants weekly in addition to collecting compliance samples.

19-505. Security

Minor water systems must provide:

- (1) fencing with locking gates;
- (2) locks on access manholes;
- (3) locks on wellheads and well houses; and
- (4) other necessary precautions to prevent vandalism, pilfering, trespass, and sabotage.

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