252:631-1-1. Purpose
(a) This chapter sets the operation standards for Public Water Supply systems so they may provide safe drinking water. This Chapter is analogous to the federal PWS program. Other rules may govern Public Water Supply system operations, such as the Discharge Regulations (OAC 252:605) (OAC 252:606), Laboratory Certification (OAC 252:300), Minor Public Water Supply Systems (OAC 252:624), Public Water Supply Construction Standards (OAC 252:626) and Operator Certification (OAC 252:710). This Chapter implements the "Oklahoma Water Supply Systems Act" at Title 27A, § 2-6-301 and following.
(b) This chapter applies to any person or entity, including any federal facility, that operates a Public Water Supply system in Oklahoma, except for minor public water supply systems, which are regulated in OAC 252:624.

252:631-1-2. Definitions
In addition to terms defined in Title 27A of the Oklahoma Statutes, 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).

"AWWA" means the American Water Works Association.

"DEQ" means the Oklahoma Department of Environmental Quality.

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

"EPA" means the Environmental Protection Agency.

"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 microbiological tests made in a laboratory approved by the DEQ, on water samples submitted to confirm the quality of the water.

"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.

"OAC" means Oklahoma Administrative Code.

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

"OWRB" means the Oklahoma Water Resources Board.
"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 groundwater 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 State Health Department-approved plumbing code, 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. These water systems may be state licensed facilities or non-licensed facilities and is regulated in OAC 252:624. 

"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. 

"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. 

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, 2006, 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

252:631-3-1. PWS criteria

(a) All systems must properly operate, in accordance with a DEQ approved Operations and Maintenance manual as required by OAC 252:626-3-7, and All systems must maintain each unit to provide treatment of the water in accordance with the DEQ approved plans and specifications, in accordance with the purpose for which the units were designed and according to the terms of their permits. Permits may contain more stringent provisions than contained in the rules to meet the requirements of the provisions of 40 CFR adopted by reference in this chapter. 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 Sections 141.73, 141.173 and 141.550-553; 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 Sections 141.74, 141.174, and 141.560 - 141.562; and
12. Disinfectant residuals and disinfectant by-product requirements in 40 CFR,
Section 141.30 and 40 CFR Subpart Part 141, Subparts C, H and L.

(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 samples are shown to be safe.

252:631-3-2. Laboratory approval

Compliance analyses for coliform, inorganics, organics, radioactivity and corrosivity contaminants must be performed in a laboratory approved by the EPA or 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 may be performed by a laboratory operator certified by the DEQ. Process control tests may be performed by a laboratory operator certified by the DEQ. The DEQ 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 DEQ 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 DEQ in an electronic form acceptable to the DEQ, no later than the tenth (10th) day of the following month.

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 system must provide disinfection in accordance with 40 CFR Sections 141.72(b) and meet the monitoring requirement contained in 40 CFR Section 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 DEQ 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 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.
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 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) Fecal streptococci 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) 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 DEQ. 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.

(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 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.

252:631-3-6. Disinfection profiling and benchmarking
PWS Systems must develop disinfection profiles and benchmarks in accordance with 40 CFR Part 141, Subpart P Sections 141.172 and 141.530 - 141.544.

252:631-3-10. Process control tests
Control tests must be performed in accordance with procedures approved by the DEQ.

(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 DEQ, and submit the form to the DEQ Water Quality Division each month, with a copy to the local DEQ 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 jar tests as needed to determine the optimum coagulant dosages for plant control and operation to meet turbidity requirements.
   (C) Turbidity and residual disinfection 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 DEQ:
(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.
(D) Where ion-exchange softening is provided, determine the hardness of the finished water once a day; and
(E) Where nanofiltration, reverse osmosis or electrodialysis is provided, perform the following chemical control tests on the treated water once a day:
   (i) Alkalinity – Phenolphthalein (P),
   (ii) Alkalinity – Total,
   (iii) Hardness,
   (iv) pH value, and
   (v) Stability to calcium carbonate.

(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 or blend for the removal reduction in concentration 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 DEQ based on local conditions.
(D) Systems that treat or blend for the reduction in concentration of nitrate must test the raw and finished water at least once a day for nitrates.
(E) Systems that apply phosphate chemicals in the treatment process must test the finished water at least once a day for phosphates.

(5) Fluoridation. Where fluoridation is practiced, the system must:
(A) analyze the water twice a day for fluoride content, both before and after fluoridation;
(B) forward a copy of the analytical report (DEQ form No. 631-001) to the DEQ monthly and keep a copy at the plant; and
(C) submit a sample of treated water to the DEQ State Environmental Laboratory, or to a DEQ-Approved DEQ-accredited laboratory, for analysis of fluoride content every month.

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 for surface water systems serving a 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 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) Reporting of additional monitoring. Additional monitoring, listed in Appendix B, must be reported to DEQ 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 DEQ and maintained for at least ten (10) years unless otherwise specified.

252:631-3-12. 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.
252:631-3-13. 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.

252:631-3-17. Water system connections
(a) PWS systems must not allow the connection of a new customer without an approved sewage disposal system, as defined in OAC 252:641 (Individual and Small Public On-Site Sewage Disposal Systems) or OAC 252:656 (Water Pollution Control Construction).
(b) PWS systems shall:
   (1) not allow a physical connection between a line carrying a public drinking water supply and a line carrying water of unknown or questionable quality.
   (2) not allow connections from any PWS system to any device or system that poses a health threat unless it is equipped with an air gap of at least 6 inches or two pipe diameters, whichever is larger, above the overflow or drain pipe. The installation of a reduced pressure zone backflow prevention device will be considered in lieu of an air gap. To allow maintenance on the backflow prevention device, the design shall include a diversion line with equal backflow prevention. Do not locate backflow prevention devices in a pit or vault where they can become submerged. A fire suppression system is not considered a hazardous water supply.
   (3) not allow a cross-connection between a public water system and any private water system.
   (4) provide an air gap at all points where finished water is connected to a drain.

252:631-3-19. 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 OAC 252:605 252:606 (Discharge Standards), OAC 252:621 (Non-Industrial Flow-through and Public Water Supply Impoundments, Including Land Application) and OAC 252:626 (PWS Construction). Each lagoon shall be cleaned when the depth of the residuals is within two feet (2') of the maximum operating depth. For information about permits and requirements, contact the DEQ Water Quality Division.

252:631-3-20. Water pressure
All PWS systems must maintain a water pressure of at least twenty-five (25) psi at all service connections throughout the distribution system.

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) The Beginning July 1, 2008, the annual fee shall be calculated 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 equal $25 $40.00 for purchase systems, $50 $79.00 for ground systems or $400 $159.00 for surface systems and groundwater under the direct influence of surface water systems; and

(3) Federal program requirement costs for tracking, reporting, and enforcement and technical assistance costs (applicable to community systems and non-transient non-community systems) equal $186 $310.00 for purchase systems, $815 $1,360.00 for ground systems or $3479 $5,809.00 for surface systems and groundwater under the direct influence of surface water systems.

(c) Each system shall be charged the actual cost for regulatory services 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.

(f) 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 five years 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 calendar year immediately preceding the start of that five-year time period. 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.

252:631-3-23. Source water development
(a) Continued protection for all sources. A PWS system shall provide protection for all sources of water from potential sources of contamination through ownership, zoning, easements, leasing or other legal means.
(b) Reservoir and lake protection. PWS systems shall provide protection for the watershed of a reservoir or lake used as a source of water. Control the marginal shoreline land by purchase or ordinance. If control is through the use of an ordinance, the ordinance must describe the water district boundaries and enforcement rules which shall include:
   (1) regulating the public health aspects of the water supply, waste and sewage disposal and recreation activities;
   (2) regulating the building of structures within the control area;
   (3) regulating aquatic activities involving human body contact with the water, including restricting body contact with the water during recreational or other activities when the water quality or public health may be adversely affected; and
   (4) regulating the removal of brush and trees to the high water elevation, regulating the protection from floods during construction within the control district, and regulating the plugging of wells which are inundated, in accordance with OWRB requirements.
(c) Groundwater source protection. To protect all groundwater wells from microbiological contamination:
   (1) disinfect every new, modified or reconditioned groundwater well in accordance with AWWA standard specifications after completion of work on the well and the placement of the permanent pumping equipment;
   (2) upon completion of the well, the PWS system shall submit a copy of the well driller's log to the DEQ;
   (3) upon completion of the well, collect at least two (2) bacteriologically safe samples on consecutive days. Collect samples after chlorine used to disinfect the well has been completely dissipated and submit the sampling records to the DEQ;
   (4) if any samples show the presence of coliform bacteria, additional samples shall be taken to determine the degree of contamination and the treatment required; and
   (5) if any of the samples show the presence of fecal coliform, a study shall be conducted and a determination made whether the groundwater source is under the direct influence of surface water.

SUBCHAPTER 5. MINOR WATER SYSTEMS

Section
252:631-5-1. General
252:631-5-2. Surface water, ground water under the direct influence of surface water, and springs
252:631-5-3. Groundwater supplies
252:631-5-4. Special tests
252:631-5-5. Security
252:631-5-1. 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 local DEQ 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.

252:631-5-2. 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.
   (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 DEQ 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.

252:631-5-3. 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.

252:631-5-4. Special tests
Systems that treat for the removal of regulated contaminants must monitor for those contaminants weekly in addition to collecting compliance samples.

**252:631-5-5.-----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.