

Public Water System Deficiency List

Category: 01-Source

Code	Description	Severity	New Severity
SW22	SRC GE - LAC 51:XII.333.A.4 - Industrial Waste Discharge; 40 CFR 141.403 and LAC 51:XII.333.A.4 - No industrial waste which may cause objectionable changes in the quality of water used as a source of a public water supply shall be discharged into any lake, pond, reservoir, stream, underground water stratum, or into any place from which the waste may flow, or be carried into a source of public water supply.;222	SIG	SIG
SW23	SRC GE - LAC 51:XII.349.A - Protection during Construction; 40 CFR 141.403 and LAC 51:XII.349.A - All potable water supplies which are hereafter constructed, reconstructed, or extensively altered shall be protected to prevent contamination of the source during construction.;223	SIG	SIG
SO12	SRC GE - LAC 56:I.517.A - Abandoned Water Wells; 40 CFR 141.403 and LAC 56:I.517.A - Unless specified otherwise in the rules and regulations stated herein, it shall be the responsibility of the owner to have an abandoned water well properly plugged and sealed in accordance with methods and standards stated in §531 within 90 calendar days after abandonment. If the owner fails to plug an abandoned well within the 90-day time period, enforcement procedures, as outlined in §519, will be initiated by the department.;150	SIG	SIG
SO13	SRC GE - LAC 51:XII.109.A.3 - Potable Water Protected by Treatment; 40 CFR 141.403 and LAC 51:XII.109.A.3 - Water supplied for potable purposes shall be adequately protected by artificial treatment.;151	SIG	SIG
SO14	SRC GE - LAC 51:XII.323.A - Surface Water Shall Be Filtered; 40 CFR 141.403 and LAC 51:XII.323.A - All potable water derived from surface waters shall be filtered before distribution. Pressure filters shall not be used as the primary turbidity removal mechanism in the filtration of surface waters. On a case-by-case basis, the Department of Health and Hospitals may allow pressure filters to be used as the primary turbidity removal mechanism in systems identified as being a groundwater under the direct influence of surface water system.;152	SIG	SIG
SO15	SRC WL - LAC 51:XII.327.A.1 - GW - Not Subject to Flooding; 40 CFR 141.403 and LAC 51:XII.327.A.1 - The ground surface within a safe horizontal distance of the source in all directions shall not be subject to flooding and shall be so graded and drained as to facilitate the rapid removal of surface water. This horizontal distance shall in no case be less than 50 feet for potable water supplies.;153	SIG	SIG
SO16	SRC WL - LAC 51:XII.327.A.10 - GW - Casing Seal; 40 CFR 141.403 and LAC 51:XII.327.A.10 - Every potable water well shall be provided with a watertight sanitary well seal at the top of the casing or pipe sleeve. For wells with solid pedestal foundations, the well casing shall project at least 1 inch above the level of the foundation, and a seal between the well casing and the opening in the pump base plate shall be used to effectively seal the base plate to the well casing.;154	SIG	SIG
SO17	SRC WL - LAC 51:XII.327.A.11 - GW - Well Vent; 40 CFR 141.403 and LAC 51:XII.327.A.11 - All potable water well casings shall be vented to atmosphere as provided in §327.A.12 below, with the exception that no vent will be required when single-pipe jet pumps are used.;155	SIG	SIG
SO18	SRC WL - LAC 51:XII.327.A.12 - GW - Well Vent Construction; 40 CFR 141.403 and LAC 51:XII.327.A.12 - All potable water well vents shall be so constructed and installed as to prevent the entrance of contamination. All vent openings shall be piped water tight to a point not less than 24 inches above the highest flood level which may have occurred in a 10-year period, but in no case less than 24 inches above the ground surface. Such vent openings and extensions thereof shall be not less than 1/2 inch in diameter, with extension pipe firmly attached thereto. The openings of the vent pipes shall face downward and shall be screened to prevent the entrance of foreign matter.;156	SIG	SIG

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SO19	SRC WL - LAC 51:XII.327.A.13 - GW - Manholes; 40 CFR 141.403 and LAC 51:XII.327.A.13 - Manholes may be provided on dug wells, reservoirs, tanks, and other similar water supply structures. Every such manhole shall be fitted with a watertight collar or frame having edges which project at least 2 inches above the level of the surrounding surface, and shall be provided with a solid watertight cover having edges which overlap and project downward at least inches around the outside of the frame. The cover shall be kept locked at all times, except when it is necessary to open the manhole.;157	SIG	SIG
SO20	SRC WL - LAC 51:XII.327.A.14 - GW - Well Construction Water Well Rules; 40 CFR 141.403 and LAC 51:XII.327.A.14 - All wells constructed to serve a potable water supply shall be constructed in accordance with Louisiana Water Well Rules, Regulations, and Standards. Drillers of wells to serve a potable water supply will comply with the requirements for licensing of water well drillers under state Act No. 715 of 1980 which is administered by the Louisiana Office of Public Works.;158	SIG	SIG
SO21	SRC WL - LAC 51:XII.327.A.15 - GW - Sample Tap; 40 CFR 141.403 and LAC 51:XII.327.A.15 - All potable water supply wells shall be provided with a readily accessible faucet or tap on the well discharge line at the well for the collection of water samples. The faucet or tap shall be of the smooth nozzle type, shall be upstream of the well discharge line check valve and shall terminate in a downward direction.;159	SIG	SIG
SO22	SRC WL - LAC 51:XII.327.A.6 - GW - Casings Project Below Ground; 40 CFR 141.403 and LAC 51:XII.327.A.6 - All well and spring basin casings or curbing shall extend a safe distance below the ground surface. The minimum depth of casings or curbing shall not be less than 50 feet in the case of public water supplies and not less than 10 feet in the case of private water supplies.;160	SIG	SIG
SO23	SRC WL - LAC 51:XII.327.A.7 - GW - Casings Project Above Ground; 40 CFR 141.403 and LAC 51:XII.327.A.7 - In wells with pipe casings, the casings shall project at least 12 inches above ground level or the top of the cover or floor shall slope away from the well casings or suction pipe in all directions. Dug well linings shall extend at least 12 inches above the ground surface and cover installed thereon. The cover shall be watertight, and its edges shall overlap and extend downward at least 2 inches over the walls or curbing of such wells. In flood-prone areas the top of the casing shall be at least 2 feet above the highest flood level which may have occurred in a 10-year period, but in no case less than feet above the ground surface.;161	SIG	SIG
SO24	SRC WL - LAC 51:XII.327.A.8 - GW - Grouting; 40 CFR 141.403 and LAC 51:XII.327.A.8 - The annular space between the well casing and the bore hole shall be sealed with cement-bentonite slurry or neat cement. Community public water supply wells shall be cemented to their full depth from the top of the producing aquifer to the ground surface. non community public supply wells shall be cemented from a minimum depth of 50 feet to the ground surface. and private supply wells shall be cemented for minimum depth of 10 feet to the ground surface.;162	SIG	SIG
SO25	SRC WL - LAC 51:XII.327.A.9 - GW - Water Tight Cover/Pump Room Floors; 40 CFR 141.403 and LAC 51:XII.327.A.9 - Every dug well, spring, or other structure used as a source of potable water, or for the storage of potable water, shall be provided with a watertight cover. Covers and every pump room floor shall be constructed of concrete or similar impervious material, and shall be elevated above the adjacent ground level and sloped to facilitate the rapid removal of water so as to provide drainage from the cover or floor and prevent contamination of the water supply. Such cover or floor shall be constructed so that there are no copings, parapets, or other features which may prevent proper drainage, or by which water can be held on the cover. Concrete floors or cover slabs shall be of such thickness and so reinforced as to carry the load which may be imposed upon it, but in no case less and 4 inches thick.;163	SIG	SIG
SO26	SRC IN - TSS 3.1.4.1.a - SW - Intake Structures; 40 CFR 141.403 and TSS 3.1.4.1.a - Design of intake structures shall provide for withdrawal of water from more than one level if quality varies with depth.;164	SIG	REC

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Code	Description	Severity	New Severity
SO27	SRC GE - TSS 3.2.1.2 - Groundwater Sources Backup/Redundancy; 40 CFR 141.403 and TSS 3.2.1.2 - A minimum of two sources of groundwater shall be provided.;165	SIG	MIN
SO28	SRC WL - TSS 3.2.5.10.a - GW - Upper Terminal Well Construction; 40 CFR 141.403 and TSS 3.2.5.10.a - Permanent casing for all groundwater sources shall project at least 12 inches above the pumphouse floor or concrete apron surface and at least 18 inches above final ground surface.;166	SIG	SIG
SO30	SRC WL - TSS 3.2.7.3.a.4 - GW - Check and Shutoff Valve, Pressure Gauge, Flow Meter, and Sample Tap; 40 CFR 141.403 and TSS 3.2.7.3.a.4 - The discharge piping shall be equipped with a check valve in or at the well, a shutoff valve, a pressure gauge, a means of measuring flow, and a smooth nosed sampling tap located at a point where positive pressure is maintained.;168	SIG	SIG
SO31	SRC WL - TSS 3.2.7.3.a.5 - GW - Air Release Valve (where applicable); 40 CFR 141.403 and TSS 3.2.7.3.a.5 - The discharge piping shall where applicable, be equipped with an air release-vacuum relief valve located upstream from the check valve, with exhaust/relief piping terminating in a down-turned position at least 18 inches above the floor and covered with a 4 mesh corrosion resistant screen.;169	SIG	SIG
SO33	SRC WL - TSS 3.2.7.3.a.7 - GW - Piping Protected from Damage/Freezing; 40 CFR 141.403 and TSS 3.2.7.3.a.7 - The discharge piping shall have all exposed piping, valves and appurtenances protected against physical damage and freezing.;171	SIG	SIG
SO34	SRC WL - TSS 3.2.7.7.b - GW - Drawdown Tubing Sealed; 40 CFR 141.403 and TSS 3.2.7.7.b - Where pneumatic water level measuring equipment is used it shall be made using corrosion resistant materials attached firmly to the drop pipe or pump column and in such a manner as to prevent the entrance of foreign materials.;172	SIG	SIG
SW11	SRC GE - LAC 51:XII.109.A.1 - Potable Water Free from Pollution; 40 CFR 141.403 and LAC 51:XII.109.A.1 - Water supplied for potable purposes shall be obtained from a source free from pollution.;211	SIG	SIG
SW12	SRC GE - LAC 51:XII.109.A.2 - Potable Water Protected from Pollution; 40 CFR 141.403 and LAC 51:XII.109.A.2 - Water supplied for potable purposes shall be obtained from a source adequately protected by natural agencies from the effects of pollution.;212	SIG	SIG
SW13	SRC WL - LAC 51:XII.327.A.2 - GW - Safe Distance; 40 CFR 141.403 and LAC 51:XII.327.A.2 - Every potable water well, and the immediate appurtenances thereto that comprise the well, shall be located at a safe distance from all possible sources of contamination, including but not limited to, privies, cesspools, septic tanks, subsurface tile systems, sewers, drains, barnyards, and pits below the ground surface. The horizontal distance from any such possible source of pollution shall be as great as possible, but in no case less than the following minimum distances, except as otherwise approved by the state health officer.;213	SIG	SIG
SW14	SRC WL - LAC 51:XII.327.A.3 - GW - Toilet, Soil Pipe, and Drains; 40 CFR 141.403 and LAC 51:XII.327.A.3 - No toilet, sewer, soil pipe or drain shall be located above or where leakage therefrom can reach any water storage basin, reservoir or source of water supply.;214	SIG	SIG
SW15	SRC WL - LAC 51:XII.327.A.4 - GW - Unauthorized Pits; 40 CFR 141.403 and LAC 51:XII.327.A.4 - There shall be no unauthorized pits or unfilled spaces below level of ground surface, any part of which is within 50 feet of such water supply, except properly constructed well, pump, or valve pits as covered under §329.A.4 of this Part.;215	SIG	SIG
SW16	SRC WL - LAC 51:XII.327.A.5 - GW - Earth Formation Exclude Seepage; 40 CFR 141.403 and LAC 51:XII.327.A.5 - The earth formations above the water-bearing stratum shall be of such character and depth as to exclude contamination of the source of supply by seepage from the surface of the ground.;216	SIG	SIG

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SW17	SRC GE - LAC 51:XII.331.A - Well Abandonment; 40 CFR 141.403 and LAC 51:XII.331.A - Abandoned water wells and well holes shall be plugged in accordance with the Louisiana Water Well Rules, Regulations, and Standards.;217	SIG	SIG
SW18	SRC GE - LAC 51:XII.333.A - Designate Waterbody as "Reservoir"; 40 CFR 141.403 and LAC 51:XII.333.A - The state health officer may designate any water body, or a part of any water body, as a reservoir, where, in its use as a water source for public water supply, the control of other uses of the water body, or designated part of the water body, and its watershed, is necessary to protect public health.;218	SIG	SIG
SW19	SRC GE - LAC 51:XII.333.A.1 - Human Waste Storage Distance from Reservoir; 40 CFR 141.403 and LAC 51:XII.333.A.1 - No cesspool, privy or other place for the deposit of storage of human excrement shall be located within 50 feet of the high water mark of any reservoir, stream, brook, or other watercourse flowing into any reservoir, and no place of this character shall be located within 250 feet of the high water mark of any reservoir or watercourse as above mentioned, unless such receptacle is so constructed that no portion of the contents can escape or be washed into the reservoir or watercourse.;219	SIG	SIG
SW20	SRC GE - LAC 51:XII.333.A.2 - Animal Waste Storage Distance from Reservoir; 40 CFR 141.403 and LAC 51:XII.333.A.2 - No stable, pigpen, chicken house or other structure where the excrement of animals or fowls is allowed to accumulate, shall be located within 50 feet of the high water mark of any reservoir or watercourse as above mentioned, and no structure of this character shall be located within 250 feet of the high water mark of such waters unless provision is made for preventing manure or other polluting materials from flowing or being washed into such waters.;220	SIG	SIG
SW21	SRC GE - LAC 51:XII.333.A.3 - Restriction of Activities in Reservoir; 40 CFR 141.403 and LAC 51:XII.333.A.3 - Boating, fishing, water skiing and swimming on any reservoir or watercourse as above mentioned shall be prohibited or otherwise restricted by the state health officer, when it has been determined that the public water source is exposed to a health hazard, and that such prohibitions or restrictions are therefore necessary. In any case, the aforementioned activities shall be prohibited within 100 feet of the water intake point of the public water supply.;221	SIG	SIG
SO29	SRC WL - TSS 3.2.7.3.a.3 - GW - Discharge Piping Protected from Contamination; 40 CFR 141.403 and TSS 3.2.7.3.a.3 - The discharge piping shall be protected against the entrance of contamination.;167	SIG	SIG
SO36	SRC WL - TSS 3.2.5.10.e - GW - Protection from physical damage; 40 CFR 141.403 and TSS 3.2.5.10.e - Protection from physical damage shall be provided as required by the reviewing authority.;	SIG	SIG
SO11	SRC GE - LAC 56:I.107.C.1 - Registration of Water Wells; 40 CFR 141.403 and LAC 56:I.107.C.1 - All wells used to supply a public water system, regardless of yield, and all other water wells capable of producing more than 50,000 gallons per day, which were constructed on or after July 1, 1975, shall be registered by the owner by completing a water well registration long form (DOTD GW-1) for each well and sending them to the Department for verification and registration within ninety (90) calendar days after the effective date of these regulations.;149	MIN	MIN
SO32	SRC WL - TSS 3.2.7.3.a.6 - GW - Valve to Permit Test Pumping; 40 CFR 141.403 and TSS 3.2.7.3.a.6 - The discharge piping shall be valved to permit test pumping and control of each well.;170	MIN	MIN
MG42	SRC GE - TSS 3.2.4.4 - Water Well Records; TSS 3.2.4.4 - The owner of each well shall retain all records pertaining to each well, until the well has been properly abandoned.;92	MIN	MIN

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Category: 02-Treatment

Code	Description	Severity	New Severity
T329	TRTMT - TSS 5.1.5 - Chemical Application - Liquid Chemical Feeders - Siphon Control; 40 CFR 141.403 and TSS 5.1.5 - Liquid chemical feeders shall be such that chemical solutions cannot be siphoned or overfed into the water supply, by assuring discharge at a point of positive pressure, providing vacuum relief, providing a suitable air gap, or providing other suitable means or combinations as necessary.;274	SIG	SIG
T330	TRTMT - TSS 5.1.6.a - Cross-connection Control - Water Lines to Solution Tanks; 40 CFR 141.403 and TSS 5.1.6.a - The service water lines discharging to solution tanks shall be properly protected from backflow as required by the reviewing authority.;275	SIG	SIG
T331	TRTMT - TSS 5.1.7 - Chemical Application - Chemical Feed Equipment Location; 40 CFR 141.403 and TSS 5.1.7 - Chemical feed equipment shall be readily accessible for servicing, repair, and observation or operation, should be located in a separate room where required to reduce hazards and dust problems, and should be conveniently located near points of application to minimize length of feed lines.;276	SIG	SIG
T332	TRTMT - TSS 5.1.8.d - In-plant Water Supply; 40 CFR 141.403 and TSS 5.1.8.d - In-plant water supply shall be properly protected against backflow.;277	SIG	SIG
T333	TRTMT - TSS 5.1.9.a - Chemical Application - Storage of Chemicals - Space; 40 CFR 141.403 and TSS 5.1.9.a - Space should be provided for at least 30 days of chemical supply, convenient and efficient handling of chemicals, dry storage conditions, and a minimum storage volume of 1.5 truck loads where purchase is by truck load lots.;278	SIG	REC
T334	TRTMT - TSS 5.1.9.d - Chemical Application - Storage of Chemicals - Level Indicator and Spill Containment; 40 CFR 141.403 and TSS 5.1.9.d - Liquid chemical storage tanks must have a liquid level indicator and have an overflow and a receiving basin capable of receiving accidental spills or overflows without uncontrolled discharge. a common receiving basin may be provided for each group or compatible chemicals, that provides sufficient containment volume to prevent accidental discharge in the event of failure of the largest tank.;279	SIG	MIN
T335	TRTMT - TSS 5.2.2 - Chemicals - Specifications - Approved Chemicals; 40 CFR 141.403 and TSS 5.2.2 - Chemicals shall be approved by the reviewing authority or meet the appropriate ANSI/AWWA standards and/or ANSI/NSF Standard 60.;280	SIG	SIG
T336	TRTMT - TSS 5.4.1.a - Specific Chemicals - Chlorine Gas Feed and Storage; 40 CFR 141.403 and TSS 5.4.1.a - Chlorine gas feed and storage shall be enclosed and separated from other operating areas. The chlorine room shall be provided with a shatter resistant inspection window installed in an interior wall, constructed in such a manner that all openings between the chlorine room and the remainder of the plant are sealed, and provided with doors equipped with panic hardware, assuring ready means of exit and opening outward only to the building exterior.; 200 220 401 403;179	SIG	MIN
T344	TRTMT - TSS 5.4.1.c.8 - Chlorine Gas - Floor Drains in Chlorine Rooms; 40 CFR 141.403 and TSS 5.4.1.c.8 - Where chlorine gas is used, the room shall be constructed to provide the following: floor drains are discouraged. Where provided, the floor drains shall discharge to the outside of the building and shall not be connected to other internal or external drainage systems.; 401 403;187	SIG	REC
T384	TRTMT - TSS 4.7.6 - Fluoridation - Testing Equipment; 40 CFR 141.403 and TSS 4.7.6 - Equipment shall be provided for measuring the quantity of fluoride in the water. Such equipment shall be subject to the approval of the reviewing authority.; 380;216	SIG	SIG
T306	TRTMT - TSS 5.1.1.b - Chemical Application - Facility Design - Separate Feeders; 40 CFR 141.403 and TSS 5.1.1.b - A separate feeder shall be used for each chemical applied.;254	SIG	SIG

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Code	Description	Severity	New Severity
T307	TRTMT - TSS 5.1.10.a - Chemical Application - Solution Tanks - Maintain Solution Strength; 40 CFR 141.403 and TSS 5.1.10.a - A means which is consistent with the nature of the chemical solution shall be provided in a solution tank to maintain uniform strength of solution. Continuous agitation shall be provided to maintain slurries in suspension.;255	SIG	SIG
T308	TRTMT - TSS 5.1.10.c - Chemical Application - Solution Tanks - Measuring; 40 CFR 141.403 and TSS 5.1.10.c - Means shall be provided to measure the liquid level in the tank.;256	SIG	SIG
T309	TRTMT - TSS 5.1.10.e - Chemical Application - Solution Tanks - Subsurface Locations; 40 CFR 141.403 and TSS 5.1.10.e - Subsurface locations for solution tanks shall be free from sources of possible contamination and assure positive drainage for ground waters, accumulated water, chemical spills and overflows.;257	SIG	SIG
T311	TRTMT - TSS 5.1.10.g - Chemical Application - Solution Tanks - Acid Tanks; 40 CFR 141.403 and TSS 5.1.10.g - Acid storage tanks must be vented to the outside atmosphere, but not through vents in common with day tanks.;259	SIG	SIG
T312	TRTMT - TSS 5.1.10.h - Chemical Application - Solution Tanks - Drain; 40 CFR 141.403 and TSS 5.1.10.h - Each tank shall be provided with a valved drain, protected against backflow in accordance with Sections 5.1.5 and 5.1.6.;260	SIG	SIG
T313	TRTMT - TSS 5.1.10.i - Chemical Application - Solution Tanks - Spill Protection; 40 CFR 141.403 and TSS 5.1.10.i - Solution tanks shall be located and protective curbing provided so that chemicals from equipment failure, spillage or accidental drainage shall not enter the water in conduits, treatment or storage basins.;261	SIG	MIN
T314	TRTMT - TSS 5.1.11.a - Chemical Application - Day Tanks Required; 40 CFR 141.403 and TSS 5.1.11.a - Day tanks shall be provided where bulk storage of liquid chemical is provided, meet all the requirements of Section 5.1.10, hold no more than a 30 hour supply, and be scale mounted or have a calibrated gauge painted or mounted on the side if liquid levels can be observed in a gauge tube or through translucent sidewalls of the tank. In opaque tanks, a gauge rod extending above a reference point at the top of the tank, attached to a float may be used. The ratio of the area of the tank to its height must be such that unit readings are meaningful in relation to the total amount of chemical fed during a day.;262	SIG	SIG
T316	TRTMT - TSS 5.1.11.e - Chemical Application - Day Tanks w/ Transfer Pumps; 40 CFR 141.403 and TSS 5.1.11.e - For day tanks where motor driven transfer pumps are provided, a liquid level limit switch and an over-flow from the day tank, must be provided.;264	SIG	SIG
T317	TRTMT - TSS 5.1.11.f - Chemical Application - Day Tanks Maintain Solution Strength; 40 CFR 141.403 and TSS 5.1.11.f - A means which is consistent with the nature of chemical solution shall be provided to maintain uniform strength of solution in a day tank. Continuous agitation shall be provided to maintain chemical slurries in suspension.;265	SIG	SIG
T318	TRTMT - TSS 5.1.13.d - Chemical Application - Handling - Measuring; 40 CFR 141.403 and TSS 5.1.13.d - Provision shall be made for measuring quantities of chemicals used to prepare feed solutions.;266	SIG	SIG
T320	TRTMT - TSS 5.1.2.d - Chemical Application - Water Flow Meter; 40 CFR 141.403 and TSS 5.1.2.d - A means to measure water flow must be provided in order to determine chemical feed rates.;268	SIG	SIG
T321	TRTMT - TSS 5.1.2.e - Chemical Application - Required Measuring Provisions; 40 CFR 141.403 and TSS 5.1.2.e - Provisions shall be made for measuring the quantities of chemicals used.;269	SIG	MIN
T322	TRTMT - TSS 5.1.2.f.1 - Chemical Application - Weighing Scales Chlorine Gas; 40 CFR 141.403 and TSS 5.1.2.f.1 - Weighing scales shall be provided for weighing cylinders at all plants utilizing chlorine gas.; 200 220 401 403;176	SIG	SIG

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T323	TRTMT - TSS 5.1.2.f.4 - Chemical Application - Weighing Scales Precision; 40 CFR 141.403 and TSS 5.1.2.f.4 - Weighing scales shall be capable of providing reasonable precision in relation to average daily dose.; 200 220 401 403;177	SIG	SIG
T325	TRTMT - TSS 5.1.3.a - Chemical Application - Dry Chemical Feeders - Measuring; 40 CFR 141.403 and TSS 5.1.3.a - Dry chemical feeders shall measure chemicals volumetrically or gravimetrically.;270	SIG	SIG
T326	TRTMT - TSS 5.1.3.b - Chemical Application - Dry Chemical Feeders - Solution Water and Agitation; 40 CFR 141.403 and TSS 5.1.3.b - Dry chemical feeders shall provide adequate solution water and agitation of the chemical in the solution pot.;271	SIG	SIG
T327	TRTMT - TSS 5.1.3.c - Chemical Application - Dry Chemical Feeders - Enclose Chemicals; 40 CFR 141.403 and TSS 5.1.3.c - Dry chemical feeders shall completely enclose chemicals to prevent emission of dust to the operating room.;272	SIG	MIN
T328	TRTMT - TSS 5.1.4 - Positive Displacement Solution Pumps; 40 CFR 141.403 and TSS 5.1.4 - Positive displacement type solution feed pumps should be used to feed liquid chemicals, but shall not be used to feed chemical slurries. Pumps must be capable of operating at the required maximum rate against the maximum head conditions found at the point of injection.;273	SIG	SIG
T244	TRTMT - TSS 4.4.2.10 - Softening - Bypass Piping and Equipment; 40 CFR 141.403 and TSS 4.4.2.10 - A bypass must be provided around softening units to produce a blended water of desirable hardness. Totalizing meters must be installed on the bypass line and on each softener unit. The bypass line must have a shutoff valve and should have an automatic proportioning or regulating device. In some installations, it may be necessary to treat the bypassed water to obtain acceptable levels of iron and/or manganese in the finished water.; 460 500;122	SIG	SIG
T245	TRTMT - TSS 4.4.2.11 - Softening - Chlorine Residual; 40 CFR 141.403 and TSS 4.4.2.11 - When the applied water contains a chlorine residual, the cation exchange resin shall be a type that is not damaged by residual chlorine. Phenolic resin should not be used.; 460 500;123	SIG	REC
T348	TRTMT - TSS 5.4.3 - Sodium Chlorite - Proper Storage and Handling; 40 CFR 141.403 and TSS 5.4.3 - Proposals for the storage and use of sodium chlorite must be approved by the reviewing authority prior to the preparation of final plans and specifications. Provisions shall be made for proper storage and handling of sodium chlorite to eliminate any danger of fire or explosion associated with its powerful oxidizing nature.; 220;191	SIG	SIG
T349	TRTMT - TSS 5.4.3.a.1 - Sodium Chlorite - Storage; 40 CFR 141.403 and TSS 5.4.3.a.1 - Chlorite (sodium chlorite) shall be stored by itself in a separate room and preferably shall be stored in an outside building detached from the water treatment facility. It must be stored away from organic materials because many materials will catch fire and burn violently when in contact with chlorite.; 220;192	SIG	MIN
T350	TRTMT - TSS 5.4.3.a.2 - Sodium Chlorite - Storage; 40 CFR 141.403 and TSS 5.4.3.a.2 - The storage structures shall be constructed of noncombustible materials.; 220;193	SIG	SIG
T351	TRTMT - TSS 5.4.3.a.3 - Sodium Chlorite - Water Available in Case of Fire; 40 CFR 141.403 and TSS 5.4.3.a.3 - If the storage structures must be located in an area where a fire may occur, water must be available to keep the sodium chlorite area cool enough to prevent heat induced explosive decomposition of the chlorite.; 220;194	SIG	SIG
T353	TRTMT - TSS 5.4.3.c.1 - Sodium Chlorite - Feeders - Positive Displacement; 40 CFR 141.403 and TSS 5.4.3.c.1 - Positive displacement feeders shall be provided.; 220;196	SIG	SIG

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Code	Description	Severity	New Severity
T354	TRTMT - TSS 5.4.3.c.2 - Sodium Chlorite - Feeders - Tubing Material; 40 CFR 141.403 and TSS 5.4.3.c.2 - Tubing for conveying sodium or chlorine dioxide solutions shall be Type 1 PVC, polyethylene or materials recommended by the manufacturer.; 220;197	SIG	SIG
T356	TRTMT - TSS 5.4.3.c.5 - Sodium Chlorite - Feeders - Check Valve; 40 CFR 141.403 and TSS 5.4.3.c.5 - Check valves shall be provided to prevent the backflow of chlorine into the sodium chlorite line.; 220;199	SIG	SIG
T357	TRTMT - TSS 5.4.4.b.1 - Sodium Hypochlorite - Feeder Type; 40 CFR 141.403 and TSS 5.4.4.b.1 - Positive displacement pumps with hypochlorite compatible materials for wetted surfaces shall be used.; 421 423;200	SIG	SIG
T358	TRTMT - TSS 5.4.4.b.2 - Sodium Hypochlorite - Feeder Suction Line - Small; 40 CFR 141.403 and TSS 5.4.4.b.2 - To avoid air locking in smaller installations, smaller diameter suction lines shall be used with foot valves and degassing pump heads.; 421 423;201	SIG	SIG
T359	TRTMT - TSS 5.4.4.b.3 - Sodium Hypochlorite - Feeder Suction Line - Large; 40 CFR 141.403 and TSS 5.4.4.b.3 - In larger installations flooded suction shall be used with pipe work arranged to ease escape of gas bubbles.; 421 423;202	SIG	SIG
T360	TRTMT - TSS 5.4.4.b.4 - Sodium Hypochlorite - Feeder Calibration Tubes or Mass Flow Monitors; 40 CFR 141.403 and TSS 5.4.4.b.4 - Calibration tubes or mass flow monitors which allow for direct physical checking of actual feed rates shall be fitted.; 421 423;203	SIG	SIG
T361	TRTMT - TSS 5.4.4.b.5 - Sodium Hypochlorite - Feeder Injectors; 40 CFR 141.403 and TSS 5.4.4.b.5 - Injectors shall be made removable for regular cleaning where hard water is to be treated.; 421 423;204	SIG	SIG
T362	TRTMT - TSS 5.4.5.2 - Ammonia - Aqua Ammonia Area Separated; 40 CFR 141.403 and TSS 5.4.5.2 - Aqua ammonia feed pumps and storage shall be enclosed and separated from other operating areas.; 200;205	SIG	MIN
T363	TRTMT - TSS 5.4.5.2.a - Ammonia - Aqua Ammonia Bulk Storage; 40 CFR 141.403 and TSS 5.4.5.2.a - The aqua ammonia room shall be equipped as in Section 5.4.1 with the following changes: A corrosion resistant, closed, unpressurized tank shall be used for bulk storage, vented through an inert liquid trap to a high point outside and an incompatible connector or lockout provisions shall be made to prevent accidental addition of other chemicals to the storage tank.; 200;206	SIG	MIN
T364	TRTMT - TSS 5.4.5.2.b - Ammonia - Aqua Ammonia Vapor Pressure Control; 40 CFR 141.403 and TSS 5.4.5.2.b - The aqua ammonia room shall be equipped as in Section 5.4.1 with the following changes: The storage tank shall be fitted either with cooling/refrigeration and/or with provision without opening the system to dilute and mix the contents with water to avoid conditions where temperature increases cause the ammonia vapor pressure over the aqua ammonia to exceed atmospheric pressure.; 200;207	SIG	SIG
T347	TRTMT - TSS 5.4.1.e - Chlorine Gas - Pressurized Feed Lines; 40 CFR 141.403 and TSS 5.4.1.e - Pressurized chlorine feed lines shall not carry chlorine gas beyond the chlorinator room.; 401 403;190	SIG	MIN
T366	TRTMT - TSS 5.4.5.2.d - Ammonia - Aqua Ammonia Pressure Relief Vents; 40 CFR 141.403 and TSS 5.4.5.2.d - The aqua ammonia room shall be equipped as in Section 5.4.1 with the following changes: The aqua ammonia feed pump, regulators, and lines shall be fitted with pressure relief vents discharging outside the building away from any air intake and with water purge lines leading back to the headspace of the bulk storage tank.; 200;209	SIG	SIG
T367	TRTMT - TSS 5.4.5.2.e - Ammonia - Aqua Ammonia Conveyed Directly; 40 CFR 141.403 and TSS 5.4.5.2.e - The aqua ammonia room shall be equipped as in Section 5.4.1 with the following changes: The aqua ammonia shall be conveyed direct from storage to the treated water stream injector without the use of a carrier water stream unless the carrier stream is softened.; 200;210	SIG	SIG

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Code	Description	Severity	New Severity
T368	TRTMT - TSS 5.4.5.3.a - Ammonia - Anhydrous Ammonia Area Separated; 40 CFR 141.403 and TSS 5.4.5.3.a - Anhydrous ammonia and storage feed systems (including heater where required) shall be enclosed and separated from other works areas and constructed of corrosion resistant materials.; 200;211	SIG	MIN
T370	TRTMT - TSS 5.4.5.3.d - Ammonia - Anhydrous Ammonia Leak Detection; 40 CFR 141.403 and TSS 5.4.5.3.d - Leak detection systems shall be fitted in all areas through which ammonia is piped.; 200;213	SIG	SIG
T371	TRTMT - TSS 5.4.5.3.e - Ammonia - Anhydrous Ammonia Water Backflow Into Cylinders; 40 CFR 141.403 and TSS 5.4.5.3.e - Special vacuum breaker/regulator provisions must be made to avoid potentially violent results of backflow of water into cylinders or storage tanks.; 200;214	SIG	SIG
T105	TRTMT - LAC 51:XII.353.C - Disinfection of New Water Supplies; 40 CFR 141.403 and LAC 51:XII.353.C - Water from new systems, or from new parts of existing systems, shall not be furnished for consumer's use until tests performed by a laboratory which is certified by the state health officer have shown the new system or new part of the system to be free from contamination by coliform bacteria. Samples shall not be collected from the new facilities until such new facilities have been disinfected as prescribed in §353.A above, and the chlorinated water thoroughly flushed from the system.;226	SIG	SIG
T106	TRTMT - LAC 51:XII.355.A - Mandatory Disinfection; 40 CFR 141.403 and LAC 51:XII.355.A - Routine, continuous disinfection is required of all public water systems other than those under § 361.A of this Part. Where continuous chlorination methods are used, the following minimum concentration of free chlorine residual shall be provided leaving the plant. pH up to 7.0 requires 0.4 mg/l free chlorine, pH 7.0 - 8.0 requires 0.6 mg/l free chlorine, pH 8.0 - 9.0 requires 0.8 mg/l free chlorine, pH over 9.0 requires 1.0 mg/l free chlorine.;227	SIG	SIG
T107	TRTMT - LAC 51:XII.355.B - GW - Mandatory Disinfection Contact Time; 40 CFR 141.403 and LAC 51:XII.355.B - All new groundwater systems installed after the effective date of these regulations shall provide at least 30 minutes contact time prior to the first customer. It is recommended that all existing systems provide the 30 minute contact time prior to the first customer. Additions to or extensions of existing systems are exempt from the 30 minute contact time.;228	SIG	SIG
T108	TRTMT - LAC 51:XII.355.C - SW/GUDI - Mandatory Disinfection/Contact Time; 40 CFR 141.403 and LAC 51:XII.355.C - Public water systems which use surface water or ground water under the direct influence of surface water shall meet the requirements of applicable sections of the Interim Enhanced Surface Water Treatment Rule as it pertains to CT and Giardia, Cryptosporidium, and virus removal/inactivation/disinfection requirements.;229	SIG	SIG
T109	TRTMT - LAC 51:XII.355.D - Mandatory Disinfection Date Pop > 500; 40 CFR 141.403 and LAC 51:XII.355.D - The effective date for mandatory disinfection for all public water systems serving a population greater than 500 shall be July 1, 1995.;230	SIG	SIG
T110	TRTMT - LAC 51:XII.355.E - Mandatory Disinfection Date Pop < 500; 40 CFR 141.403 and LAC 51:XII.355.E - The effective date of mandatory disinfection for all public water supplies serving a population of 500 or less shall be July 1, 1996.;231	SIG	SIG
T111	TRTMT - LAC 51:XII.357.A - Minimum Disinfection Residuals in Distribution System; 40 CFR 141.403 and LAC 51:XII.357.A - A minimum disinfectant residual of detectable amount of total chlorine shall be maintained at all points throughout the distribution system at all times 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.;232	SIG	SIG

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Code	Description	Severity	New Severity
T112	TRTMT - LAC 51:XII.359.A - Other Methods of Disinfection; 40 CFR 141.403 and LAC 51:XII.359.A - Where chlorination is not used as the primary disinfectant, chlorine or chloramines shall be used as the secondary disinfectant to provide the residuals required in §357.A of this Part. Other methods shall be evaluated on a case-by-case basis by the state health officer.;233	SIG	SIG
T113	TRTMT - LAC 51:XII.365.A - Batch Disinfection; 40 CFR 141.403 and LAC 51:XII.365.A - The state health officer may allow batch disinfection for emergency purposes. Batch disinfection shall not be considered a method of continuous disinfection.;234	SIG	SIG
T114	TRTMT - LAC 51:XIV.627.A - LSPC - Water Treatment Units; 40 CFR 141.403 and LAC 51:XIV.627.A - Drinking water treatment units shall meet the requirements of ANSI/NSF 42 and 53. Units are designed to be used for the reduction of specific contaminants from potable drinking water, such contaminants being considered as potential health hazards or affecting the aesthetic quality characteristics of potable drinking water.;235	SIG	SIG
T101	TRTMT - LAC 51:XII.1131.B.1 - Conventional and Direct Filtration Rates; 40 CFR 141.403 and LAC 51:XII.1131.B.1 - Conventional and direct filtration treatment plants shall be operated at flow rates not to exceed 3 gallons per minute per square foot for gravity filters.; 342 345;1	SIG	SIG
T102	TRTMT - LAC 51:XII.1131.B.2 - Slow Sand Filtration Rate; 40 CFR 141.403 and LAC 51:XII.1131.B.2 - Slow sand filters shall be operated at filtration rates not to exceed 0.10 gallons per minute per square foot.; 346;2	SIG	SIG
T115	TRTMT - TSS 2.8.1.h - Poly and/or Orthophosphate Test Equipment; 40 CFR 141.403 and TSS 2.8.1.h - Public water supplies which feed poly and/or orthophosphates shall have test equipment capable of accurately measuring phosphates from 0.1 to 20 milligrams per liter.; 441 443 445 447 449 680;3	SIG	SIG
T117	TRTMT - TSS 4.1.3.a - Clarification - Flocculation - Basin Design; 40 CFR 141.403 and TSS 4.1.3.a - Inlet and outlet design shall minimize short-circuiting and destruction of floc, A drain and/or pumps shall be provided to handle dewatering and sludge removal.; 240 360 660;5	SIG	MIN
T119	TRTMT - TSS 4.1.3.c - Clarification - Flocculation - Equipment; 40 CFR 141.403 and TSS 4.1.3.c - Agitators shall be driven by variable speed drives with the peripheral speed of paddles ranging from 0.5 to 3.0 feet per second.; 240 360 660;7	SIG	REC
T120	TRTMT - TSS 4.1.4.a - Clarification - Sedimentation - Detention Time; 40 CFR 141.403 and TSS 4.1.4.a - Shall provide a minimum of four hours of settling time. This may be reduced to two hours for lime-soda softening facilities treating only groundwater. Reduced sedimentation time may also be approved when equivalent effective settling is demonstrated or when overflow rate is not more than 0.5 gpm per square foot (1.2 m/hr).; 240 360 660;8	SIG	REC
T121	TRTMT - TSS 4.1.4.b - Clarification - Sedimentation - Inlet Devices; 40 CFR 141.403 and TSS 4.1.4.b - Inlets shall be designed to distribute the water equally and at uniform velocities. Open ports, submerged ports, and similar entrance arrangements are required. A baffle should be constructed across the basin close to the inlet end and should project several feet below the water surface to dissipate inlet velocities and provide uniform flows across the basin.; 240 360 660;9	SIG	REC
T122	TRTMT - TSS 4.1.4.c - Clarification - Sedimentation - Outlet Devices; 40 CFR 141.403 and TSS 4.1.4.c - Outlet weirs or submerged orifices shall maintain velocities suitable for settling in the basin and minimize short-circuiting. The use of submerged orifices is recommended in order to provide a volume above the orifices for storage when there are fluctuations in flow. Outlet weirs and submerged orifices shall be designed as follows. (1) The rate of flow over the outlet weirs or through the submerged orifices shall not exceed 20,000 gallons per day per foot (250m ³ /day/m) of the outlet launder. (2) submerged orifices should not be located lower than three feet below the flow line. (3) the entrance velocity through the submerged orifices shall not exceed 0.5 feet per second.; 240 360 660;10	SIG	MIN

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Code	Description	Severity	New Severity
T123	TRTMT - TSS 4.1.4.d - Clarification - Sedimentation - Velocity; 40 CFR 141.403 and TSS 4.1.4.d - The velocity through settling basins should not exceed 0.5 feet per minute. The basins must be designed to minimize short-circuiting. Fixed or adjustable baffles must be provided as necessary to achieve the maximum potential for clarification.; 240 360 660;11	SIG	REC
T124	TRTMT - TSS 4.1.4.e - Clarification - Sedimentation - Overflow; 40 CFR 141.403 and TSS 4.1.4.e - An overflow weir or pipe designed to establish the maximum water level desired on top of the filters should be provided. The overflow shall discharge by gravity with a free fall at a location where the discharge will be noted.; 240 360 660;12	SIG	REC
T125	TRTMT - TSS 4.1.4.g - Clarification - Sedimentation - Sludge Collection; 40 CFR 141.403 and TSS 4.1.4.g - Adequate sludge collection equipment that ensures proper basin coverage shall be provided.; 240 360 660;13	SIG	MIN
T126	TRTMT - TSS 4.1.4.h - Clarification - Sedimentation - Drainage; 40 CFR 141.403 and TSS 4.1.4.h - Basins must be provided with a means for dewatering. Basin bottoms should slope toward the drain not less than one foot in twelve feet where mechanical sludge collection equipment is not required.; 240 360 660;14	SIG	MIN
T127	TRTMT - TSS 4.1.4.i - Clarification - Sedimentation - Flushing Lines; 40 CFR 141.403 and TSS 4.1.4.i - Flushing lines or hydrants shall be provided and must be equipped with backflow prevention devices acceptable to the reviewing authority.; 240 360 660;15	SIG	SIG
T128	TRTMT - TSS 4.1.4.k - Clarification - Sedimentation - Sludge Removal; 40 CFR 141.403 and TSS 4.1.4.k - Sludge removal design shall provide that. (1) sludge pipes shall be not less than three inches in diameter and so arranged as to facilitate cleaning. (2) entrance to sludge withdrawal piping shall prevent clogging. (3) valves shall be located outside the tank for accessibility. (4) and the operator may observe and sample sludge being withdrawn from the unit.; 240 360 660;16	SIG	MIN
T129	TRTMT - TSS 4.1.5.12.a - Clarification - Solids Contact Unit - Weirs or Orifices; 40 CFR 141.403 and TSS 4.1.5.12.a - The units should be equipped with either overflow weirs or orifices constructed so that water at the surface of the unit does not travel over 10 feet horizontally to the collection trough. Weirs shall be adjustable, and at least equivalent in length to the perimeter of the tank.; 240 360 660;17	SIG	MIN
T130	TRTMT - TSS 4.1.5.12.b - Clarification - Solids Contact Unit - Weir or Orifices; 40 CFR 141.403 and TSS 4.1.5.12.b - The units should be equipped with either overflow weirs or orifices constructed so that water at the surface of the unit does not travel over 10 feet horizontally to the collection trough. Weir loading shall not exceed. (1) 10 gpm per foot of weir length (120 L/min/m) for units used for clarifiers. (2) 20 gpm per foot of weir length (240 L/min/m) for units used for softeners.; 240 360 660;18	SIG	MIN
T131	TRTMT - TSS 4.1.5.13.a - Clarification - Solids Contact Unit - Upflow Rates; 40 CFR 141.403 and TSS 4.1.5.13.a - Unless supporting data is submitted to the reviewing authority to justify rates exceeding the following, rates shall not exceed 1.0 gpm per square foot of area (2.4 m/hr) at the sludge separation line for units used for clarifiers and 1.75 gpm per square foot of area (4.2 m/hr) at the slurry separation line, for units used for softeners.; 240 360 660;19	SIG	MIN
T132	TRTMT - TSS 4.1.5.2.c - Clarification - Solids Contact Unit - Operating Equipment; 40 CFR 141.403 and TSS 4.1.5.2.c - The following shall be provided for plant operation: c. adequate piping with suitable sampling taps so located as to permit the collection of samples of water from critical portions of the units.; 240 360 660;20	SIG	SIG
T133	TRTMT - TSS 4.1.5.3 - Clarification - Solids Contact Unit - Chemical Feed; 40 CFR 141.403 and TSS 4.1.5.3 - Chemicals shall be applied at such points and by such means as to insure satisfactory mixing of the chemicals with the water.; 240 360 660;21	SIG	SIG

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Code	Description	Severity	New Severity
T135	TRTMT - TSS 4.1.5.7.a - Clarification - Solids Contact Unit - Sludge Pipe Diameter; 40 CFR 141.403 and TSS 4.1.5.7.a - Sludge removal design shall provide that sludge pipes shall be not less than three inches in diameter and so arranged as to facilitate cleaning, entrance to sludge withdrawal piping shall prevent clogging, valves shall be located outside the tank for accessibility, and the operator may observe and sample sludge being withdrawn from the unit.; 240 360 660;23	SIG	MIN
T136	TRTMT - TSS 4.1.5.8.b - Clarification - Solids Contact Unit - Backflush Sludge Lines; 40 CFR 141.403 and TSS 4.1.5.8.b - Cross-connection control must be included for the potable water lines used to backflush sludge lines.; 240 360 660;24	SIG	SIG
T138	TRTMT - TSS 4.1.6.1.a - Clarification - Tube/Plate Settlers - Inlet/Outlet; 40 CFR 141.403 and TSS 4.1.6.1.a - Design to maintain velocities suitable for settling in the basin and to minimize short circuiting. Plate units shall be designed to minimize maldistribution across the units.; 240 360 660;26	SIG	MIN
T139	TRTMT - TSS 4.1.6.1.b - Clarification - Tube/Plate Settlers - Drainage; 40 CFR 141.403 and TSS 4.1.6.1.b - Drain piping from the settler units must be sized to facilitate a quick flush of the settler units and to prevent flooding other portions of the plant.;236	SIG	MIN
T140	TRTMT - TSS 4.1.6.1.d - Clarification - Tube/Plate Settlers - Application Rate for Tubes; 40 CFR 141.403 and TSS 4.1.6.1.d - A maximum rate of 2 gpm per square foot of cross-sectional area (4.8 m/hr) for tube settlers, unless higher rates are successfully shown through pilot plant or in plant-demonstration studies.; 240 360 660;27	SIG	MIN
T141	TRTMT - TSS 4.1.6.1.e - Clarification - Tube/Plate Settlers - Application Rate for Plates; 40 CFR 141.403 and TSS 4.1.6.1.e - A maximum plate loading rate of 0.5 gpm per square foot (1.2 m/hr), based on 80 percent of the projected horizontal plate area.; 240 360 660;28	SIG	MIN
T142	TRTMT - TSS 4.1.6.1.f - Clarification - Tube/Plate Settlers - Flushing Lines; 40 CFR 141.403 and TSS 4.1.6.1.f - Flushing lines shall be provided to facilitate maintenance and must be properly protected against backflow or back siphonage.; 240 360 660;29	SIG	SIG
T143	TRTMT - TSS 4.1.a - Clarification - Multiple Units; 40 CFR 141.403 and TSS 4.1.a - Plants designed to include clarification for processing surface water shall provide a minimum of two units each for rapid mix, flocculation and sedimentation.; 240 360 660;30	SIG	SIG
T144	TRTMT - TSS 4.1.c - Clarification - Allow Unit to be Taken Out of Service; 40 CFR 141.403 and TSS 4.1.c - Plants designed to include clarification for processing surface water shall be constructed to permit units to be taken out of service without disrupting operation, and with drains or pumps sized to allow dewatering in a reasonable period of time.; 240 360 660;31	SIG	SIG
T145	TRTMT - TSS 4.10.1.b - Microscreening; 40 CFR 141.403 and TSS 4.10.1.b - Design shall provide (1) a durable, corrosion-resistant screen. (2) by-pass arrangements. (3) protection against back-siphonage when potable water is used for washing. (4) proper disposal of wash waters.; 520;32	SIG	REC
T146	TRTMT - TSS 4.10.1.b.1-4 - Microscreening - Design; 40 CFR 141.403 and TSS 4.10.1.b.1-4 - Design shall provide: 1. a durable, corrosion-resistant screen. 2. by-pass arrangements. 3. protection against back-siphonage when potable water is used for washing. 4. proper disposal of wash meters.; 520;33	SIG	REC

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Category: 02-Treatment

Code	Description	Severity	New Severity
T147	TRTMT - TSS 4.2.1.10.a.1-4 - Filtration - Rapid Gravity - Appurtenances; 40 CFR 141.403 and TSS 4.2.1.10.a.1-4 - For appurtenances the following shall be provided for every filter: 1. influent and effluent sampling taps. 2. an indicating loss of head gauge. 3. an indicating rate of flow meter. A modified rate controller which limits the rate of filtration to a maximum rate may be used. However, equipment that simply maintains a constant water level on the filters is not acceptable, unless the rate of flow onto the filter is properly controlled. A pump or a flow meter in each filter effluent line may be used as the limiting device for the rate of filtration only after consultation with the reviewing authority. 4. where used for surface water, provisions for filtering to waste with appropriate measures for backflow prevention.; 345;34	SIG	SIG
T148	TRTMT - TSS 4.2.1.11.a - Filtration - Rapid Gravity - Backwash - Rate; 40 CFR 141.403 and TSS 4.2.1.11.a - A minimum rate of 15 gallons per minute per square foot (37m/hr), consistent with water temperatures and specific gravity of the filter media. A rate of 20 gallons per minute per square foot (50m/hr) or a rate necessary to provide for 50 percent expansion of the filter bed is recommended. A reduced rate of 10 gallons per minute per square foot (24m/hr) may be acceptable for full depth anthracite or granular activated carbon filters.; 345;35	SIG	REC
T149	TRTMT - TSS 4.2.1.11.b - Filtration - Rapid Gravity - Backwash - Equipment; 40 CFR 141.403 and TSS 4.2.1.11.b - Filtered water provided at the required rate by washwater tanks, a washwater pump, from the high service main, or a combination of these.; 345;36	SIG	SIG
T150	TRTMT - TSS 4.2.1.11.c - Filtration - Rapid Gravity - Backwash - Duplicate Pumps; 40 CFR 141.403 and TSS 4.2.1.11.c - Washwater pumps in duplicate unless an alternate means of obtaining washwater is available.; 345;37	SIG	SIG
T151	TRTMT - TSS 4.2.1.11.d - Filtration - Rapid Gravity - Backwash - Minimum Wash Time; 40 CFR 141.403 and TSS 4.2.1.11.d - Not less than 15 minutes wash of one filter at the design rate of wash.; 345;38	SIG	REC
T152	TRTMT - TSS 4.2.1.11.e - Filtration - Rapid Gravity - Backwash - Flow Controlling Valve; 40 CFR 141.403 and TSS 4.2.1.11.e - A washwater regulator or valve on the main washwater line to obtain the desired rate of filter wash with the washwater valves on the individual filters open wide.; 345;39	SIG	SIG
T153	TRTMT - TSS 4.2.1.11.f - Filtration - Rapid Gravity - Backwash - Flow Meter; 40 CFR 141.403 and TSS 4.2.1.11.f - A rate-of-flow indicator, preferably with a totalizer, on the main washwater line, located so that it can be easily read by the operator during the washing process.; 345;40	SIG	SIG
T154	TRTMT - TSS 4.2.1.11.g - Filtration - Rapid Gravity - Backwash - Rapid Changes in Flow rate; 40 CFR 141.403 and TSS 4.2.1.11.g - Design to prevent rapid changes in backwash water flow.; 345;41	SIG	SIG
T155	TRTMT - TSS 4.2.1.12 - Filtration - Rapid Gravity - Roof Drains; 40 CFR 141.403 and TSS 4.2.1.12 - Roof drains shall not discharge into the filters or basins and conduits preceding the filters.; 345;42	SIG	SIG
T156	TRTMT - TSS 4.2.1.3 - Filtration - Rapid Gravity - At Least Two Units; 40 CFR 141.403 and TSS 4.2.1.3 - At least two units shall be provided. Where only two units are provided, each shall be capable of meeting the plant design capacity at this approved filtration rate. Where more than two filter units are provided, the filters shall be capable of meeting the plant design capacity at the approved filtration rate with one filter removed from service.; 345;43	SIG	SIG

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Category: O2-Treatment

Code	Description	Severity	New Severity
T157	TRTMT - TSS 4.2.1.4.a-o - Filtration - Rapid Gravity - Filter Structure; 40 CFR 141.403 and TSS 4.2.1.4.a-o - The filter structure shall be designed to provide for a. vertical walls within the filter. b. no protrusion of the filter walls into the filter media. c. cover by superstructure. d. head room to permit inspection and operation. e. minimum depth of filter box of 8.5 feet. f. minimum water depth over the surface of the filter media of three feet. g. trapped effluent to prevent backflow of air to the bottom of the filters. h. prevention of floor drainage to the filter with a minimum 4-inch curb around the filters. i. prevention of flooding by providing overflow. j. maximum velocity of treated water in pipe and conduits to filters of two feet per second. k. cleanouts and straight alignment for influent pipes or conduits where solids loading is heavy, or following lime-soda softening. l. washwater drain capacity to carry maximum flow. m. walkways around filters, to be not less than 24 inches wide. n. safety handrails or walls around all filter walkways. o. construction to prevent cross connections and common walls between potable and non-potable water.; 345;44	SIG	SIG
T158	TRTMT - TSS 4.2.1.6.e.3.d - Granular Activated Carbon - Replacement/Regeneration; 40 CFR 141.403 and TSS 4.2.1.6.e.3.d - Granular activated carbon (GAC) - Provisions must be made for frequent replacement or regeneration.; 121;45	SIG	MIN
T159	TRTMT - TSS 4.2.1.8.a-c - Filtration - Rapid Gravity - Surface or Subsurface Wash; 40 CFR 141.403 and TSS 4.2.1.8.a-c - Surface or subsurface wash facilities are required except for filters used exclusively for iron or manganese removal, and may be accomplished by a system of fixed nozzles or a revolving-type apparatus. All devices shall be designed with: a. provision for water pressure of at least 45 psi (310 kPa). b. a properly installed vacuum breaker or other approved device to prevent back siphonage if connected to the treated water system. c. rate of flow of 2.0 gallons per minute per square foot of filter area (4.9 m/hr) with fixed nozzles or 0.5 gallons per minute per square foot (1. m/hr) with revolving arms.; 345;46	SIG	SIG
T160	TRTMT - TSS 4.2.1.9.a - Filtration - Rapid Gravity - Air Scouring - Air Flow; 40 CFR 141.403 and TSS 4.2.1.9.a - Air flow for air scouring the filter be 3-5 standard cubic feet per minute square foot of filter area (0.9-1.5 m3/min/m2) when the air is introduced in the underdrain. a lower air rate must be used when the air scour distribution system is placed above the underdrains.; 345;47	SIG	MIN
T161	TRTMT - TSS 4.2.1.9.b - Filtration - Rapid Gravity - Air Scouring - Loss of Filter Media; 40 CFR 141.403 and TSS 4.2.1.9.b - A method for avoiding excessive loss of the filter media during backwashing must be provided.; 345;48	SIG	REC
T162	TRTMT - TSS 4.2.1.9.c - Filtration - Rapid Gravity - Air Scouring - Fluidization Wash; 40 CFR 141.403 and TSS 4.2.1.9.c - Air scouring must be followed by a fluidization wash sufficient to restratify the media.; 345;49	SIG	MIN
T163	TRTMT - TSS 4.2.1.9.d - Filtration - Rapid Gravity - Air Scouring - Air Quality; 40 CFR 141.403 and TSS 4.2.1.9.d - Wash air must be free from contamination.; 345;50	SIG	SIG
T164	TRTMT - TSS 4.2.1.9.e - Filtration - Rapid Gravity - Air Scouring - Distribution System; 40 CFR 141.403 and TSS 4.2.1.9.e - Air scour distribution systems should be placed below the media and supporting bed interface. if placed at the interface the air scour nozzles shall be designed to prevent media from clogging the nozzles or entering the air distribution system.; 345;51	SIG	REC
T165	TRTMT - TSS 4.2.1.9.f - Filtration - Rapid Gravity - Air Scouring - Distribution Piping; 40 CFR 141.403 and TSS 4.2.1.9.f - Piping for the air distribution system shall not be flexible hose which will collapse when not under air pressure and shall not be a relatively soft material which may erode at the orifice opening with the passage of air at high velocity.; 345;52	SIG	MIN

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Category: 02-Treatment

Code	Description	Severity	New Severity
T166	TRTMT - TSS 4.2.1.9.g - Filtration - Rapid Gravity - Air Scouring - No Piping Through Media; 40 CFR 141.403 and TSS 4.2.1.9.g - Air delivery piping shall not pass down through the filter media nor shall there be any arrangement in the filter design which would allow short circuiting between the applied unfiltered water and the filtered water.; 345;53	SIG	SIG
T167	TRTMT - TSS 4.2.1.9.I - Filtration - Rapid Gravity - Air Scouring - Backwash Water Rate; 40 CFR 141.403 and TSS 4.2.1.9.I - The backwash water delivery system must be capable of 15 gallons per minute per square foot of filter surface area (37 m/hr). however, when air scour is provided the backwash water rate must be variable and should not exceed 8 gallons per minute per square foot (20 m/hr) unless operating experience shows that a higher rate is necessary to remove scoured particles from filter media surfaces.; 345;54	SIG	REC
T225	TRTMT - TSS 4.3.7.5.a - Disinfection - Ozone Destruction - Treat Final Off-Gas; 40 CFR 141.403 and TSS 4.3.7.5.a - A system for treating the final off-gas from each contactor must be provided in order to meet safety and air quality standards. Acceptable systems include thermal destruction and thermal/catalytic destruction units.; 541 543;103	SIG	SIG
T226	TRTMT - TSS 4.3.7.5.d - Disinfection - Ozone Destruction - Multiple Units; 40 CFR 141.403 and TSS 4.3.7.5.d - For ozone destruction at least two units shall be provided which are each capable of handling the entire gas flow.; 541 543;104	SIG	SIG
T227	TRTMT - TSS 4.3.7.6 - Disinfection - Ozone - Piping Materials; 40 CFR 141.403 and TSS 4.3.7.6 - For piping materials only low carbon 340L and 316L stainless steels shall be used for ozone service with 316L the preferred.; 541 543;105	SIG	SIG
T228	TRTMT - TSS 4.3.7.7.b - Disinfection - Ozone - Joints and Connections - Flanged Joints; 40 CFR 141.403 and TSS 4.3.7.7.b - Connections with meters, valves or other equipment are to be made with flanged joints with ozone resistant gaskets, such as Teflon or Hypalon. Screwed fittings shall not be used because of their tendency to leak.; 541 543;106	SIG	SIG
T229	TRTMT - TSS 4.3.7.7.c - Disinfection - Ozone - Joints and Connections - Valves; 40 CFR 141.403 and TSS 4.3.7.7.c - A positive closing plug or butterfly valve plus a leak-proof check valve shall be provided in the piping between the generator and the contactor to prevent moisture reaching the generator.; 541 543;107	SIG	SIG
T230	TRTMT - TSS 4.3.7.8.a - Disinfection - Ozone - Instrumentation - Pressure Gauge; 40 CFR 141.403 and TSS 4.3.7.8.a - For instrumentation pressure gauges shall be provided at the discharge from the air compressor, at the inlet to the refrigeration dryers, at the inlet and outlet of the desiccant dryers, at the inlet to the ozone generators and contactors and at the inlet to the ozone destruction unit.; 541 543;108	SIG	SIG
T231	TRTMT - TSS 4.3.7.8.c - Disinfection - Ozone - Instrumentation - Dew Point Monitors; 40 CFR 141.403 and TSS 4.3.7.8.c - Dew point monitors shall be provided for measuring the moisture of the feed gas from the desiccant dryers.; 541 543;109	SIG	SIG
T232	TRTMT - TSS 4.3.7.8.d - Disinfection - Ozone - Instrumentation - Air Flow Meters; 40 CFR 141.403 and TSS 4.3.7.8.d - Air flow meters shall be provided for measuring air flow from the desiccant dryers to each of other ozone generators, air flow to each contactor and purge air flow to the desiccant dryers.; 541 543;110	SIG	SIG
T233	TRTMT - TSS 4.3.7.8.e - Disinfection - Ozone - Instrumentation - Temperature Gauges; 40 CFR 141.403 and TSS 4.3.7.8.e - Temperature gauges shall be provided for the inlet and outlet of the ozone cooling water and the inlet and outlet of the generator feed gas, and, if necessary, for the inlet and outlet of the ozone power supply cooling water.; 541 543;111	SIG	SIG

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Code	Description	Severity	New Severity
T234	TRTMT - TSS 4.3.7.8.f - Disinfection - Ozone - Instrumentation - Water Flow Meter; 40 CFR 141.403 and TSS 4.3.7.8.f - Water flow meters shall be installed to monitor the flow of cooling water to the ozone generators and, if necessary, to the ozone power supply.; 541 543;112	SIG	SIG
T235	TRTMT - TSS 4.3.7.8.g - Disinfection - Ozone - Instrumentation - Ozone Monitor; 40 CFR 141.403 and TSS 4.3.7.8.g - Ozone monitors shall be installed to measure zone concentration in both the feed-gas and off-gas from the contactor and in the off-gas from the destruct unit. For disinfection systems, monitors shall also be provided for monitoring ozone residuals in the water. The number and location of ozone residual monitors shall be such that the amount of time that the water is in contact with the ozone residual can be determined.; 541 543;113	SIG	SIG
T236	TRTMT - TSS 4.3.7.8.h - Disinfection - Ozone - Instrumentation - Ambient Ozone Monitor; 40 CFR 141.403 and TSS 4.3.7.8.h - A minimum of one ambient ozone monitor shall be installed in the vicinity of the contactor and a minimum of one shall be installed in the vicinity of the generator. Ozone monitors shall also be installed in any areas where ozone gas may accumulate.; 541 543;114	SIG	SIG
T237	TRTMT - TSS 4.3.8.1 - Disinfection - Chlorine Dioxide - Generation Equipment; 40 CFR 141.403 and TSS 4.3.8.1 - Chlorine dioxide generation equipment shall be factory assembled pre-engineered units with a minimum efficiency of 95 percent. The excess free chlorine shall not exceed three percent of the theoretical stoichiometric concentration required.; 220;115	SIG	SIG
T239	TRTMT - TSS 4.4.1.4 - Softening - Rapid Mix Detention Time; 40 CFR 141.403 and TSS 4.4.1.4 - Rapid mix basins must provide not more than 30 seconds detention time with adequate velocity gradients to keep the lime particles dispersed.; 460 500;117	SIG	REC
T240	TRTMT - TSS 4.4.1.5 - Softening - Stabilization; 40 CFR 141.403 and TSS 4.4.1.5 - Equipment for stabilization of water softened by the lime or lime-soda process is required.; 460 500;118	SIG	SIG
T243	TRTMT - TSS 4.4.1.8 - Softening - Disinfection - Excess Lime; 40 CFR 141.403 and TSS 4.4.1.8 - The use of excess lime shall not be considered an acceptable substitute for disinfection.; 460 500;121	SIG	SIG
T169	TRTMT - TSS 4.2.2.3.a - Filtration - Rapid Pressure - Loss of Head Gauges; 40 CFR 141.403 and TSS 4.2.2.3.a - The filters shall be designed to provide for a loss of head gauges on the inlet and outlet pipes of each battery of filters.; 344;56	SIG	SIG
T170	TRTMT - TSS 4.2.2.3.b - Filtration - Rapid Pressure - Flow Meter; 40 CFR 141.403 and TSS 4.2.2.3.b - The filters shall be designed to provide for an easily readable meter or flow indicator on each battery of filters. A flow indicator is recommended for each filtering unit.; 344;57	SIG	SIG
T171	TRTMT - TSS 4.2.2.3.c - Filtration - Rapid Pressure - Individual Filter Piping; 40 CFR 141.403 and TSS 4.2.2.3.c - The filters shall be designed to provide for filtration and backwashing of each filter individually with an arrangement of piping as simple as possible to accomplish these purposes.; 344;58	SIG	SIG
T172	TRTMT - TSS 4.2.2.3.d - Filtration - Rapid Pressure - Side Wall Height; 40 CFR 141.403 and TSS 4.2.2.3.d - The filters shall be designed to provide for minimum side wall shell height of five feet. A corresponding reduction in side wall height is acceptable where proprietary bottoms permit reduction of the gravel depth.; 344;59	SIG	REC
T173	TRTMT - TSS 4.2.2.3.e - Filtration - Rapid Pressure - Washwater Collector Height; 40 CFR 141.403 and TSS 4.2.2.3.e - The filters shall be designed to provide for the top of the washwater collectors to be at least 18 inches above the surface of the media.; 344;60	SIG	REC

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Code	Description	Severity	New Severity
T174	TRTMT - TSS 4.2.2.3.f - Filtration - Rapid Pressure - Underdrain; 40 CFR 141.403 and TSS 4.2.2.3.f - The filters shall be designed to provide for the underdrain system to efficiently collect the filtered water and to uniformly distribute the backwash water at a rate not less than 15 gallons per minute per square foot of filter area (37 m/hr).; 344;61	SIG	REC
T175	TRTMT - TSS 4.2.2.3.g - Filtration - Rapid Pressure - Backwash Flow Meter; 40 CFR 141.403 and TSS 4.2.2.3.g - The filters shall be designed to provide for backwash flow indicators and controls that are easily readable while operating the control valves.; 344;62	SIG	SIG
T246	TRTMT - TSS 4.4.2.12 - Softening - Sampling Taps; 40 CFR 141.403 and TSS 4.4.2.12 - Smooth-nose sampling taps must be provided for the collection of representative samples. The taps shall be located to provide for sampling of the softener influent, effluent and blended water. The sampling taps for the blended water shall be at least 20 feet downstream from the point of blending. Petcocks are not acceptable as sampling taps. Sampling taps should be provided on the brine tank discharge piping.; 460 500;124	SIG	SIG
T248	TRTMT - TSS 4.4.2.13.c - Softening - Brine and Salt Storage Tanks - Manholes; 40 CFR 141.403 and TSS 4.4.2.13.c - Wet salt storage basins must be equipped with manholes or hatchways for access and for direct dumping of salt from truck or railcar. Openings must be provided with raised curbs and watertight covers having overlapping edges similar to those required for finished water reservoirs.; 460 500;126	SIG	SIG
T249	TRTMT - TSS 4.4.2.13.d - Softening - Brine and Salt Storage Tanks - Overflows; 40 CFR 141.403 and TSS 4.4.2.13.d - Overflows, where provided, must be protected with corrosion resistant screens and must terminate with either a turned down bend having a proper free fall discharge or a self-closing flap valve.; 460 500;127	SIG	SIG
T251	TRTMT - TSS 4.4.2.13.f - Softening - Brine and Salt Storage Tanks - Salt Support; 40 CFR 141.403 and TSS 4.4.2.13.f - The salt shall be supported on graduated layers of gravel placed over brine collection system.; 460 500;129	SIG	MIN
T254	TRTMT - TSS 4.4.2.17 - Softening - Waste Disposal; 40 CFR 141.403 and TSS 4.4.2.17 - Suitable disposal must be provided for brine waste. Where the volume of spent brine must be reduced, consideration may be given to using a part of the spent brine for a subsequent regeneration.; 460 500;132	SIG	REC
T255	TRTMT - TSS 4.4.2.18 - Softening - Construction Materials; 40 CFR 141.403 and TSS 4.4.2.18 - Pipes and contact materials must be resistant to the aggressiveness of salt. Plastic and red brass are acceptable piping materials. Steel and concrete must be coated with a non-leaching protective coating which is compatible with salt and brine.; 460 500;133	SIG	MIN
T256	TRTMT - TSS 4.4.2.19 - Softening - Housing; 40 CFR 141.403 and TSS 4.4.2.19 - Bagged salt and Dry bulk salt storage shall be enclosed and separated from other operating areas in order to prevent damage to equipment.; 460 500;134	SIG	MIN
T258	TRTMT - TSS 4.4.2.5 - Softening - Flow Rates; 40 CFR 141.403 and TSS 4.4.2.5 - The rate of softening should not exceed seven gallons per minute per square foot of bed area (17 m/hr) and the backwash rate should be six to eight gallons per minute per square foot (14-20 m/hr) of bed area. Rate-of-flow controllers or the equivalent must be installed for the above purposes.; 460 500;136	SIG	REC
T260	TRTMT - TSS 4.4.2.7 - Softening - Underdrains and Supporting Gravel; 40 CFR 141.403 and TSS 4.4.2.7 - The bottoms, strainer systems and support for the exchange resin shall conform to criteria provided for rapid rate gravity filters. (see Sections 1.2.1.6 and 4.2.1.7).; 460 500;138	SIG	MIN
T262	TRTMT - TSS 4.4.2.9 - Softening - Cross-connection Control; 40 CFR 141.403 and TSS 4.4.2.9 - Backwash, rinse and air relief discharge pipes shall be installed in such a manner as to prevent any possibility of back-siphonage.; 460 500;140	SIG	SIG

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Code	Description	Severity	New Severity
T264	TRTMT - TSS 4.5.7 - Aeration - Protection of Aerators; 40 CFR 141.403 and TSS 4.5.7 - All aerators except those discharging to lime softening or clarification plants shall be protected from contamination by birds, insects, wind borne debris, rainfall, and water draining off the exterior of the aerator.; 141 143 145 147 149;142	SIG	SIG
T265	TRTMT - TSS 4.5.8 - Aeration - Disinfection; 40 CFR 141.403 and TSS 4.5.8 - Groundwater supplies exposed to the atmosphere by aeration must receive chlorination as the minimum additional treatment.; 141 143 145 147 149;143	SIG	SIG
T266	TRTMT - TSS 4.6.6 - Iron and Manganese Control - Sequestration by Polyphosphates; 40 CFR 141.403 and TSS 4.6.6 - This process shall not be used when iron, manganese or combination thereof exceeds 1.0mg/L. The total phosphate applied shall not exceed 10 mg/L PO4.; 441 443 445 447 449 680;144	SIG	REC
T267	TRTMT - TSS 4.6.6.b - Iron and Manganese Control - Stock Phosphate Solution; 40 CFR 141.403 and TSS 4.6.6.b - Stock phosphate solution must be kept covered and disinfected by carrying approximately 10 mg/L free chlorine residual unless the phosphate is not able to support bacterial growth and the phosphate is being fed from the covered shipping container. Phosphate solutions having a pH or 2.0 or less may also be exempted from this requirement by the reviewing authority.; 441 443 445 447 449 680;145	SIG	SIG
T268	TRTMT - TSS 4.6.6.c - Iron and Manganese Control - Polyphosphate Injection Point; 40 CFR 141.403 and TSS 4.6.6.c - Polyphosphates shall not be applied ahead of iron and manganese removal treatment. The point of application shall be prior to any aeration, oxidation or disinfection if no iron or manganese removal treatment is provided.; 441 443 445 447 449 680;146	SIG	MIN
T269	TRTMT - TSS 4.6.8 - Iron and Manganese Control - Sample Taps; 40 CFR 141.403 and TSS 4.6.8 - Smooth-nosed sampling taps shall be provided for control purposes. Taps shall be located on each raw water source, each treatment unit influent and each treatment unit effluent.; 441 443 445 447 449 680;147	SIG	SIG
T270	TRTMT - TSS 4.6.9 - Iron and Manganese Control - Test Equipment; 40 CFR 141.403 and TSS 4.6.9 - Testing equipment shall be provided for all plants. (a) The equipment should have the capacity to accurately measure the iron content to a minimum of 0.1 mg/L and the manganese content to a minimum of 0.05 mg/L. (b) where polyphosphate sequestration is practiced, appropriate phosphate testing equipment shall be provided.; 441 443 445 447 449 680;148	SIG	SIG
T271	TRTMT - TSS 4.7 - Fluoridation; 40 CFR 141.403 and TSS 4.7 - Sodium fluoride, sodium silicofluoride and fluorosilicic acid shall conform to applicable AWWA standards and ANSI/NSF Standard 60.; 380;149	SIG	SIG
T272	TRTMT - TSS 4.7.1 - Fluoridation - Fluoride Compound Storage; 40 CFR 141.403 and TSS 4.7.1 - Fluoride chemicals should be isolated from other chemicals to prevent contamination. Compounds shall be stored in covered or unopened shipping containers and should be stored inside a building. Unsealed storage units for fluorosilicic acid should be vented to the atmosphere t a point outside any building. Bags, fiber drums and steel drums should be stored on pallets.; 380;150	SIG	MIN
T273	TRTMT - TSS 4.7.2.a - Fluoridation - Measuring Equipment/Devices; 40 CFR 141.403 and TSS 4.7.2.a - Scales, loss-of-weight recorders or liquid level indicators, as appropriate, accurate to within five percent of the average daily change in reading shall be provided for chemical feeds.; 380;151	SIG	SIG
T274	TRTMT - TSS 4.7.2.b - Fluoridation - Chemical Feeder; 40 CFR 141.403 and TSS 4.7.2.b - Feeders shall be accurate to within five percent of any desired feed rate.; 380;152	SIG	SIG
T275	TRTMT - TSS 4.7.2.c - Fluoridation - Application Point; 40 CFR 141.403 and TSS 4.7.2.c - Fluoride compound shall not be added before lime-soda softening or ion exchange softening.; 380;153	SIG	SIG

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Code	Description	Severity	New Severity
T276	TRTMT - TSS 4.7.2.d - Fluoridation - Pipe Injection Point; 40 CFR 141.403 and TSS 4.7.2.d - The point of application of fluorosilicic acid, if into a horizontal pipe, shall be in the lower half of the pipe.; 380;154	SIG	SIG
T277	TRTMT - TSS 4.7.2.e - Fluoridation - Positive Displacement Pump; 40 CFR 141.403 and TSS 4.7.2.e - A fluoride solution shall be applied by a positive displacement pump having stroke rate not less than 20 strokes per minute, and at a feed rate not less than 20 percent of the rated capacity of the feed pump.; 380;155	SIG	SIG
T278	TRTMT - TSS 4.7.2.f - Fluoridation - Anti-Siphon Device; 40 CFR 141.403 and TSS 4.7.2.f - A spring opposed diaphragm type anti- siphon device shall be provided for all fluoride feed lines and dilution water lines.; 380;156	SIG	SIG
T279	TRTMT - TSS 4.7.2.g - Fluoridation -Water Flow Meter; 40 CFR 141.403 and TSS 4.7.2.g - Except for constant flow systems, device to measure the flow of water to be treated is required.; 380;157	SIG	SIG
T280	TRTMT - TSS 4.7.2.h - Fluoridation - Water Inlet Air Gap; 40 CFR 141.403 and TSS 4.7.2.h - The dilution water pipe shall terminate at least two pipe diameters above the solution tank.; 380;158	SIG	SIG
T281	TRTMT - TSS 4.7.2.i - Fluoridation - Dilution Water Hardness; 40 CFR 141.403 and TSS 4.7.2.i - Water used for sodium fluoride dissolution shall be softened if hardness exceeds 75 mg/l as calcium carbonate.; 380;159	SIG	SIG
T282	TRTMT - TSS 4.7.2.j - Fluoridation - Injection Point Positive Pressure; 40 CFR 141.403 and TSS 4.7.2.j - Fluoride solutions shall be injected at a point of continuous positive pressure or suitable air gap provided.; 380;160	SIG	SIG
T283	TRTMT - TSS 4.7.2.k - Fluoridation -Electrical for Feed Pump Connected to Well Pump; 40 CFR 141.403 and TSS 4.7.2.k - The electrical outlet used for the fluoride feed pump should have a nonstandard receptacle and shall be interconnected with the well or service pump.; 380;161	SIG	SIG
T286	TRTMT - TSS 4.7.4 - Fluoridation - Protective Equipment; 40 CFR 141.403 and TSS 4.7.4 - Personal protective equipment outlined in Section 5.3.4 shall be provided for operators handling fluoride compounds. Deluge showers and eye wash devices shall be provided at all fluorosilicic acid installations.; 380;164	SIG	REC
T287	TRTMT - TSS 4.8 - Stabilization - Required; 40 CFR 141.403 and TSS 4.8 - Water that is unstable due either to natural causes or to subsequent treatment shall be stabilized. The expected treated water quality shall be evaluated to determine what, if any, treatment is necessary.; 740 741 742;165	SIG	SIG
T290	TRTMT - TSS 4.8.1.c - Stabilization - Liquid Carbon Dioxide; 40 CFR 141.403 and TSS 4.8.1.c - Where liquid carbon dioxide is used, adequate precautions must be taken to prevent carbon dioxide from entering the plant from the recarbonation process.; 740 741 742;168	SIG	SIG
T291	TRTMT - TSS 4.8.1.d - Stabilization - Carbon Dioxide Addition - Recarb Tanks; 40 CFR 141.403 and TSS 4.8.1.d - Recarbonation tanks shall be located outside or be sealed and vented to the outside with adequate seals and adequate purge flow of air to ensure workers safety.; 740 741 742;169	SIG	REC
T292	TRTMT - TSS 4.8.1.e - Stabilization - Carbon Dioxide Addition - Recarb Basins; 40 CFR 141.403 and TSS 4.8.1.e - Provisions shall be made for draining the recarbonation basin and removing sludge.; 740 741 742;170	SIG	MIN
T298	TRTMT - TSS 5.0.3.a - Chemical Application - Adequate Feeders; 40 CFR 141.403 and TSS 5.0.3.a - General equipment design shall be such that feeders will be able to supply, at all times, the necessary amounts of chemicals at an accurate rate throughout the range of feed.;246	SIG	SIG

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Code	Description	Severity	New Severity
T299	TRTMT - TSS 5.0.3.b - Chemical Application - Adequate Material; 40 CFR 141.403 and TSS 5.0.3.b - General equipment design shall be such that chemical-contact materials and surfaces are resistant to the aggressiveness of the chemical solution.;247	SIG	SIG
T285	TRTMT - TSS 4.7.3 - Fluoridation - Secondary Controls; 40 CFR 141.403 and TSS 4.7.3 - Secondary control systems for fluoride chemical feed devices shall be provided as a means of reducing the possibility for overfeed. these may include flow or pressure switches or other devices.; 380;163	SIG	SIG
T300	TRTMT - TSS 5.0.3.c - Chemical Application - Corrosive Chemicals; 40 CFR 141.403 and TSS 5.0.3.c - General equipment design shall be such that corrosive chemicals are introduced in such a manner as to minimize potential for corrosion.;248	SIG	SIG
T301	TRTMT - TSS 5.0.3.d - Chemical Application - Incompatible Chemicals; 40 CFR 141.403 and TSS 5.0.3.d - General equipment design shall be such that chemicals that are incompatible are not stored or handled together.;249	SIG	MIN
T302	TRTMT - TSS 5.0.3.e - Chemical Application - Separate Conduits for Chemicals; 40 CFR 141.403 and TSS 5.0.3.e - General equipment design shall be such that all chemicals are conducted from the feeder to the point of application in separate conduits.;250	SIG	SIG
T303	TRTMT - TSS 5.0.3.f - Chemical Application - Proximity of Chemical Feeder; 40 CFR 141.403 and TSS 5.0.3.f - General equipment design shall be such that chemical feeders are as near as practical to the feed point.;251	SIG	MIN
T304	TRTMT - TSS 5.0.3.g - Chemical Application - Chemical Feeder Operating Range; 40 CFR 141.403 and TSS 5.0.3.g - General equipment design shall be such that chemical feeders and pumps shall operate at no lower than 20 percent of the feed range unless two fully independent adjustment mechanisms such as pump pulse rate and stroke length are fitted when the pump shall operate at no lower than 10 percent of the rated maximum.;252	SIG	SIG
T305	TRTMT - TSS 5.1.1.a.1-3 - Chemical Application - Facility Design - Number of Feeders; 40 CFR 141.403 and TSS 5.1.1.a.1-3 - Where chemical feed is necessary for the protection of the supply, such as chlorination, coagulation or other essential processes, 1. a minimum of two feeders shall be provided. 2. the standby unit or a combination of units of sufficient capacity should be available to replace the largest unit during shut downs. 3. where a booster pump is required, duplicate equipment should be provided and, when necessary, standby power.;253	SIG	MIN
T103	TRTMT - LAC 51:XII.301.A - Comply with MCLs, MRDLs, and TT; 40 CFR 141.403 and LAC 51:XII.301.A - Each public water supply shall comply with the maximum contaminant levels, maximum residual disinfectant levels, and treatment technique requirements as prescribed and as applicable in the National Primary Drinking Water Regulations, the Louisiana Total Coliform Rule, the Louisiana Surface Water Treatment Rule, the Louisiana State I Disinfectants and Disinfection Byproducts Rule, and the Louisiana Lead and Copper Rule. The state health officer, upon determining that a risk to human health may exist, reserves the right to limit exposure to any other contaminant. Further, each public water supply should comply with the National Secondary Drinking Water Regulations. Treatment to remove questionable characteristics shall be approved the state health officer.;224	SIG	SIG
T104	TRTMT - LAC 51:XII.325.A - Treatment Chemicals AWWA/EPA Approved; 40 CFR 141.403 and LAC 51:XII.325.A - Chemicals used in the treatment of water to be used for potable purposes shall either meet the standards of the American Water Works Association or meet the guidelines for potable water applications established by the U.S. Environmental Protection Agency.;225	SIG	SIG

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Code	Description	Severity	New Severity
SE14	TRTMT - LAC 51:XII.315.D - Fencing; 40 CFR 141.403 and LAC 51:XII.315.D - All public water supply wells, treatment units, tanks, etc., shall be located inside a fenced area that is capable of being locked. and areas shall be locked when unattended. The fence shall be resistant to climbing and at least 6 feet high.;146	SIG	SIG
T176	TRTMT - TSS 4.2.2.3.h - Filtration - Rapid Pressure - Air Release Valve; 40 CFR 141.403 and TSS 4.2.2.3.h - The filters shall be designed to provide for an air release valve on the highest point of each filter.; 344;63	SIG	SIG
T177	TRTMT - TSS 4.2.2.3.i - Filtration - Rapid Pressure - Manhole Access; 40 CFR 141.403 and TSS 4.2.2.3.i - The filters shall be designed to provide for an accessible manhole to facilitate inspection and repairs for filters 36 inches or more in diameter. Sufficient handholds shall be provided for filters less than 36 inches in diameter. Manholes should be at least 24 inches in diameter where feasible.; 344;64	SIG	SIG
T178	TRTMT - TSS 4.2.2.3.j - Filtration - Rapid Pressure - Observation of Backwash Water; 40 CFR 141.403 and TSS 4.2.2.3.j - The filters shall be designed to provide for means to observe the wastewater during backwashing.; 344;65	SIG	MIN
T179	TRTMT - TSS 4.2.3.10.a-f - Filtration - Diatomaceous Earth - Appurtenances; 40 CFR 141.403 and TSS 4.2.3.10.a-f - For appurtenances the following shall be provided for every filter: a. sampling taps for raw and filtered water. b. loss of head or differential pressure gauge. c. rate-of-flow indicator, preferably with totalizer. d. a throttling valve used to reduce rates below normal during adverse raw water conditions. e. evaluation of the need for body feed, recirculation, and any other pumps, in accordance with Section 6.3. f. provisions for filtering to waste with appropriate measures for backflow prevention (see Part 9).; 342;66	SIG	REC
T180	TRTMT - TSS 4.2.3.4 - Filtration - Diatomaceous Earth - Treated Water Storage; 40 CFR 141.403 and TSS 4.2.3.4 - Treated water storage capacity in excess of normal requirements shall be provided to allow operation of the filters at a uniform rate during all conditions of system demand at or below the approved filtration rate, and guarantee continuity of service during adverse raw water conditions without by-passing the system.; 342;67	SIG	REC
T181	TRTMT - TSS 4.2.3.6.a - Filtration - Diatomaceous Earth - Precoat Application; 40 CFR 141.403 and TSS 4.2.3.6.a - A uniform precoat shall be applied hydraulically to each septum by introducing a slurry to the tank influent line and employing a filter-to-waste or recirculation system.; 342;68	SIG	REC
T182	TRTMT - TSS 4.2.3.7 - Filtration - Diatomaceous Earth - Body Feed; 40 CFR 141.403 and TSS 4.2.3.7 - A body feed system to apply additional amounts of diatomaceous earth slurry during the filter run is required to avoid short filter runs or excessive head losses.; 342;69	SIG	REC
T183	TRTMT - TSS 4.2.3.8.b - Filtration - Diatomaceous Earth - Head Loss; 40 CFR 141.403 and TSS 4.2.3.8.b - The head loss shall not exceed 30 psi (210 kPa) for pressure diatomaceous earth filters, or a vacuum of 15 inches of mercury (-51 kPa) for a vacuum system.; 342;70	SIG	REC
T184	TRTMT - TSS 4.2.3.8.c - Filtration - Diatomaceous Earth - Recirculation; 40 CFR 141.403 and TSS 4.2.3.8.c - A recirculation or holding pump shall be employed to maintain differential pressure across the filter when the unit is not in operation in order to prevent the filter cake from dropping off the filter elements. A minimum recirculation rate of 0.1 gallons per minute per square foot of filter area shall be provided.; 342;71	SIG	REC
T185	TRTMT - TSS 4.2.3.9 - Filtration - Diatomaceous Earth - Backwash; 40 CFR 141.403 and TSS 4.2.3.9 - A satisfactory method to thoroughly remove and dispose of spent filter cake shall be provided.; 342;72	SIG	REC
T168	TRTMT - TSS 4.2.2.2 - Filtration - Pressure Sand - Rate of Filtration; 40 CFR 141.403 and TSS 4.2.2.2 - The rate shall not exceed four gallons per minute per square foot of filter area except where inplant testing as approved by the reviewing authority has demonstrated satisfactory results at higher rates.; 344;55	SIG	SIG

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Code	Description	Severity	New Severity
T186	TRTMT - TSS 4.2.4.1 - Filtration - Slow Gravity - Limitations; 40 CFR 141.403 and TSS 4.2.4.1 - Slow rate gravity filtration shall be limited to waters having maximum turbidities of 10 units and maximum color of 15 units. such turbidity must not be attributable to colloidal clay.; 346;73	SIG	SIG
T187	TRTMT - TSS 4.2.4.2 - Filtration - Slow Gravity - At Least Two Units; 40 CFR 141.403 and TSS 4.2.4.2 - At least two units shall be provided. Where only two units are provided, each shall be capable of meeting the plant design capacity at the approved filtration rate. Where more than two filter units are provided, the filters shall be capable of meeting the plant design capacity at the approved filtration rate with one filter removed from service.; 346;74	SIG	SIG
T188	TRTMT - TSS 4.2.4.3.a-f - Filtration - Slow Gravity - Structural Details; 40 CFR 141.403 and TSS 4.2.4.3.a-f - Slow rate gravity filters shall be so designed as to provide: a. a cover. b. headroom to permit normal movement by operating personnel for scraping and sand removal operations. c. adequate access hatches and access ports for handling of sand and for ventilation. d. filtration to waste. e. an overflow at the maximum filter water level. f. protection from freezing.; 346;75	SIG	SIG
T189	TRTMT - TSS 4.2.4.9.a-c - Filtration - Slow Gravity - Control Appurtenances; 40 CFR 141.403 and TSS 4.2.4.9.a-c - For control appurtenances each filter shall be equipped with: a. loss of head gauge. b. an orifice, Venturi meter, or other suitable means of discharge measurement installed on each filter to control the rate of filtration. c. an effluent pipe designed to maintain the water level above the top of the filter sand.; 346;76	SIG	SIG
T190	TRTMT - TSS 4.3.1.1 - Disinfection - Chlorination Equipment - Type; 40 CFR 141.403 and TSS 4.3.1.1 - Solution-feed gas chlorinators or hypochlorite feeders of the positive displacement type must be provided.;237	SIG	SIG
T191	TRTMT - TSS 4.3.1.2 - Disinfection - Chlorination - Equipment Capacity; 40 CFR 141.403 and TSS 4.3.1.2 - The chlorinator capacity shall be such that a free chlorine residual of at least 2 mg/L can be maintained in the water once all demands are met after contact time of at least 30 minutes when maximum flow rate coincides with anticipated maximum chlorine demand. The equipment shall be of such design that it will operate accurately over the desired feeding range.;238	SIG	SIG
T192	TRTMT - TSS 4.3.1.3 - Disinfection - Chlorination Equipment - Standby Equipment; 40 CFR 141.403 and TSS 4.3.1.3 - Where chlorination is required for protection of the supply, standby equipment of sufficient capacity shall be available to replace the largest unit. Spare parts shall be made available to replace parts subject to wear and breakage.;239	SIG	MIN
T196	TRTMT - TSS 4.3.1.7 - Disinfection - Chlorination Equipment - Injector/Diffuser; 40 CFR 141.403 and TSS 4.3.1.7 - The chlorine solution injector/diffuser must be compatible with the point of application to provide a rapid and thorough mix with all the water being treated. The center of a pipeline is the preferred application point.; 200 220 401 403;79	SIG	SIG
T197	TRTMT - TSS 4.3.2.d - Disinfection - Chlorine for Residual Disinfectant; 40 CFR 141.403 and TSS 4.3.2.d - If primary disinfection is accomplished using ozone or some other chemical that does not provide a residual disinfectant, then chlorine must be added to provide a residual disinfectant as mentioned in 4.3.3.;241	SIG	SIG
T198	TRTMT - TSS 4.3.4.a - Disinfection - Chlorination - Testing Equipment; 40 CFR 141.403 and TSS 4.3.4.a - Chlorine residual test equipment recognized in the latest edition of Standard Methods for the Examination of Water and Wastewater shall be provided and should be capable of measuring residuals to the nearest 0.1 milligrams per liter.;242	SIG	SIG

Public Water System Deficiency List

Category: 02-Treatment

Code	Description	Severity	New Severity
T199	TRTMT - TSS 4.3.5.1 - Disinfection - Chlorinator Piping - Cross Connections; 40 CFR 141.403 and TSS 4.3.5.1 - The chlorinator water supply piping shall be designed to prevent contamination of the treated water supply by sources of questionable quality. At all facilities treating surface water, pre- and post-chlorination systems must be independent to prevent possible siphoning of partially treated water in to the clear well. The water supply to each eductor shall have a separate shut-off valve, No master shut-off valve will be allowed.;243	SIG	SIG
T200	TRTMT - TSS 4.3.5.2 - Disinfection - Chlorinator Piping - Pipe Material; 40 CFR 141.403 and TSS 4.3.5.2 - The pipes carrying elemental liquid or dry gaseous chlorine under pressure must be Schedule 80 seamless steel tubing or other materials recommended by the Chlorine Institute (never use PVC). Rubber, PVC, polyethylene, or other materials recommended by the Chlorine Institute must be used for chlorine solution piping and fittings. Nylon products are not acceptable for any part of the chlorine solution piping system.;244	SIG	SIG
T205	TRTMT - TSS 4.3.7.2.a - Disinfection - Ozone - Air Handling Equipment; 40 CFR 141.403 and TSS 4.3.7.2.a - Air handling equipment on conventional low pressure air feed systems shall consist of an air compressor, water/air separator, refrigerant dryer, heat reactivated desiccant dryer, and particulate filters.; 541 543;83	SIG	SIG
T206	TRTMT - TSS 4.3.7.2.b.1 - Disinfection - Ozone - Air Compressor Type; 40 CFR 141.403 and TSS 4.3.7.2.b.1 - Air compressors shall be of the liquid-ring or rotary lone, oil-less, positive displacement type for smaller systems or dry rotary screw compressors for large systems.; 541 543;84	SIG	SIG
T207	TRTMT - TSS 4.3.7.2.b.2 - Disinfection - Ozone - Air Compressor Capacity; 40 CFR 141.403 and TSS 4.3.7.2.b.2 - The air compressors shall have the capacity to simultaneously provide for maximum ozone demand, provide the air flow required for purging the desiccant dryers (where required) and allow for standby capacity.; 541 543;85	SIG	SIG
T208	TRTMT - TSS 4.3.7.2.b.3 - Disinfection - Ozone - Air Compressor Feed; 40 CFR 141.403 and TSS 4.3.7.2.b.3 - Air feed for the compressor shall be drawn from a point protected from rain, condensation, mist, fog, and contaminated air sources to minimize moisture and hydrocarbon content of the air supply.; 541 543;86	SIG	SIG
T209	TRTMT - TSS 4.3.7.2.b.4 - Disinfection - Ozone - Air Compressor - After-Cooler/Entrainment Separator; 40 CFR 141.403 and TSS 4.3.7.2.b.4 - A compressed air after-cooler and/or entertainment separator with automatic drain shall be provided prior to the dryers to reduce the water vapor.; 541 543;87	SIG	SIG
T210	TRTMT - TSS 4.3.7.2.b.5 - Disinfection - Ozone - Air Compressor - Standby Equipment; 40 CFR 141.403 and TSS 4.3.7.2.b.5 - A back-up air compressor must be provided so that ozone generation is not interrupted in the event of a break-down.; 541 543;88	SIG	SIG
T211	TRTMT - TSS 4.3.7.2.c.1 - Disinfection - Ozone - Air Drying - Sufficient Drying; 40 CFR 141.403 and TSS 4.3.7.2.c.1 - Dry, dust-free and oil-free feed gas must be provided to the ozone generator. Dry gas is essential to prevent formation of nitric acid, to increase the efficiency of ozone generation and to prevent damage to the generator dielectrics. Sufficient drying to a maximum dew point of -76 °F (-60 °C) must be provided at the end of the drying cycle.; 541 543;89	SIG	SIG
T212	TRTMT - TSS 4.3.7.2.c.2 - Disinfection - Ozone - Air Drying - Types Required; 40 CFR 141.403 and TSS 4.3.7.2.c.2 - Drying for high pressure systems my be accomplished using heatless desiccant dryers only. For low pressure systems, a refrigerant air dryer in series with heat-reactivated desiccant dryers shall be used.; 541 543;90	SIG	SIG

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Category: 02-Treatment

Code	Description	Severity	New Severity
T213	TRTMT - TSS 4.3.7.2.c.3 - Disinfection - Ozone - Air Drying - Refrigeration Drying; 40 CFR 141.403 and TSS 4.3.7.2.c.3 - A refrigerant dryer capable of reducing inlet air temperature to 40 °F (4 °C) shall be provided for low pressure air preparation systems. The dryer can be of the compressed refrigerant type or chilled water type.; 541 543;91	SIG	SIG
T214	TRTMT - TSS 4.3.7.2.c.4 - Disinfection - Ozone - Air Drying - Heat-Reactivated Desiccant Drying; 40 CFR 141.403 and TSS 4.3.7.2.c.4 - For heat-reactivated desiccant dryers, the unite shall contain two desiccant filled towers complete with pressure relief valves, two four-way valves and a heater. In addition, external type dryers shall have cooler unit and blowers. The size of the unit shall be such that the specified dew point will be achieved during a minimum adsorption cycle time of 16 hours while operating at the maximum expected moisture loading conditions.; 541 543;92	SIG	SIG
T215	TRTMT - TSS 4.3.7.2.c.5 - Disinfection - Ozone - Air Drying - Multiple Units; 40 CFR 141.403 and TSS 4.3.7.2.c.5 - Multiple air dryers shall be provided so that the ozone generation is not interrupted in the event of dryer breakdown.; 541 543;93	SIG	SIG
T216	TRTMT - TSS 4.3.7.2.c.6 - Disinfection - Ozone - Air Drying - Venting "dry" Gas; 40 CFR 141.403 and TSS 4.3.7.2.c.6 - Each dryer shall be capable of venting "dry" gas to the atmosphere, prior to the ozone generator, to allow start-up when other dryers are "one-line".; 541 543;94	SIG	SIG
T217	TRTMT - TSS 4.3.7.2.d.1 - Disinfection - Ozone - Air Filters - Be Provided; 40 CFR 141.403 and TSS 4.3.7.2.d.1 - Air filters shall be provided on the suction side of the air compressors, between the air compressors and the dryers and between the dryers and the ozone generators.; 541 543;95	SIG	SIG
T218	TRTMT - TSS 4.3.7.2.d.2 - Disinfection - Ozone - Air Filters - Type; 40 CFR 141.403 and TSS 4.3.7.2.d.2 - The filter before the desiccant dryers shall be of the coalescing type and be capable of removing aerosol and particulates larger than 0.3 microns in diameter. The filter after the desiccant dryer shall be of the particulate type and be capable of removing all particulates greater than 0.1 microns in diameter, or smaller if specified by the generator manufacturer.; 541 543;96	SIG	SIG
T219	TRTMT - TSS 4.3.7.2.e - Disinfection - Ozone - Feed Gas Preparation Piping; 40 CFR 141.403 and TSS 4.3.7.2.e - Piping in the air preparation system can be common grade steel, seamless copper, stainless steel or galvanized steel. The piping must be designed to withstand the maximum pressures in the air preparation system.; 541 543;97	SIG	SIG
T220	TRTMT - TSS 4.3.7.3.a.5 - Disinfection - Ozone Generator - Backup Equipment; 40 CFR 141.403 and TSS 4.3.7.3.a.5 - Appropriate ozone generator backup equipment must be provided.; 541 543;98	SIG	SIG
T221	TRTMT - TSS 4.3.7.3.c - Disinfection - Ozone Generator - Cooling; 40 CFR 141.403 and TSS 4.3.7.3.c - Adequate cooling shall be provided.; 541 543;99	SIG	SIG
T222	TRTMT - TSS 4.3.7.3.d - Disinfection - Ozone Generator - Material; 40 CFR 141.403 and TSS 4.3.7.3.d - To prevent corrosion, the ozone generator shell and tubes shall be constructed of Type 316L stainless steel.; 541 543;100	SIG	SIG
T223	TRTMT - TSS 4.3.7.4.a.10 - Disinfection - Ozone Contactors - Bubble Diffusers - Pressure/Vacuum Relief; 40 CFR 141.403 and TSS 4.3.7.4.a.10 - For bubble diffusers a pressure/vacuum relief valve shall be provided in the contactor and piped to location where there will be no damage to the destruction unit.; 541 543;101	SIG	SIG
T224	TRTMT - TSS 4.3.7.4.a.9 - Disinfection - Ozone Contactors - Bubble Diffusers - Sample Taps; 40 CFR 141.403 and TSS 4.3.7.4.a.9 - For bubble diffusers multiple sampling ports shall be provided to enable sampling of each compartment's effluent water and to confirm "CT" calculations.; 541 543;102	SIG	SIG

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Category: 02-Treatment

Code	Description	Severity	New Severity
T411	TSS 2.10 - Sample taps shall be provided; 40 CFR 141.403 and TSS 2.10 - Sample taps shall be provided so that water samples can be obtained from each water source and from appropriate locations in each unit of operation of treatment, and from the finished water. Taps shall be consistent with sampling needs and shall not be of the petcock type. Taps used for obtaining samples for bacteriological analysis shall be of the smooth-nosed type without interior or exterior threads, shall not be of the mixing type, and shall not have a screen, aerator, or other such appurtenance.;	SIG	SIG
T412	LAC 51.XII.1127.A.1c.i - Disinfectant Contact Time >3300; 40 CFR 141.403 and LAC 51.XII.1127.A.1c.i - for systems serving 3,300 persons or more, the disinfectant contact time(s) is to be determined through the use of data developed from actual tracer studies conducted on the system (see Paragraph 1119.C.1). [Theoretical contact time(s) using baffling factors are not to be used for systems serving 3.300 persons or more].;309	SIG	SIG
T413	LAC 51.XII.1127.A.1c.ii- Disinfectant Contact Time <3300; 40 CFR 141.403 and LAC 51.XII.1127.A.1c.ii- for systems serving less than 3,300 person, the disinfectant contact time(s) may be estimated through the use of data developed in a theoretical manner by determining pipeline capacities, treatment basin capacities, clearwell storage capacity, storage tank capacities, etc., and applying the appropriate geometry and baffling factor(s) (see Paragraph 1119.C.2).; 310	SIG	SIG
T414	LAC 51:XII.1119.C.3 - Additional tracer studies; 40 CFR 141.403 and LAC 51:XII.1119.C.3 - Additional tracer studies shall be conducted by the supplier whenever modifications are made which may impact flow distribution, contact time, or disinfectant distribution.;; 311	SIG	SIG
T338	TRTMT - TSS 5.4.1.c.1 - Chlorine Gas - Ventilating Fan; 40 CFR 141.403 and TSS 5.4.1.c.1 - Where chlorine gas is used, the room shall be constructed to provide the following: each room shall have a ventilating fan with capacity which provides one complete air change per minute when the room is occupied.;; 401 403;181	MIN	MIN
T339	TRTMT - TSS 5.4.1.c.2 - Chlorine Gas - Take Suction Near Floor; 40 CFR 141.403 and TSS 5.4.1.c.2 - Where chlorine gas is used, the room shall be constructed to provide the following: the ventilating fan shall take suction near the floor as far as practical from the door and air inlet, with the point of discharge so located as not to contaminate air inlets to any rooms or structures.;; 401 403;182	MIN	MIN
T340	TRTMT - TSS 5.4.1.c.3 - Chlorine Gas - Air Inlets; 40 CFR 141.403 and TSS 5.4.1.c.3 - Where chlorine gas is used, the room shall be constructed to provide the following: air inlets should be through louvers near the ceiling.;; 401 403;183	MIN	MIN
T341	TRTMT - TSS 5.4.1.c.4 - Chlorine Gas - Louvers Facilitate Airtight Closure; 40 CFR 141.403 and TSS 5.4.1.c.4 - Where chlorine gas is used, the room shall be constructed to provide the following: louvers for chlorine room air intake and exhaust shall facilitate airtight closure.;; 401 403;184	MIN	MIN
T342	TRTMT - TSS 5.4.1.c.5 - Chlorine Gas - Switches; 40 CFR 141.403 and TSS 5.4.1.c.5 - Where chlorine gas is used, the room shall be constructed to provide the following: separate switches for the fan and lights shall be located outside of the chlorine room and at the inspection window. Outside switches shall be protected from vandalism. A signal light indicating fan operation shall be provided at each entrance when the fan can be controlled from more than one point.;; 401 403;185	MIN	MIN
T343	TRTMT - TSS 5.4.1.c.6 - Chlorine Gas - Vents from Feeders and Storage Tanks; 40 CFR 141.403 and TSS 5.4.1.c.6 - Where chlorine gas is used, the room shall be constructed to provide the following: vents from feeders and storage shall discharge to the outside atmosphere, above grade.;; 401 403;186	MIN	MIN
T319	TRTMT - TSS 5.1.14 - Chemical Application - Housing - Floor Surfaces; 40 CFR 141.403 and TSS 5.1.14 - Floor surfaces shall be smooth and impervious, slip proof and well drained and vents from feeders, storage facilities and equipment exhaust shall discharge to the outside atmosphere above grade and remote from air intakes.;;267	MIN	MIN

Public Water System Deficiency List

Category: 02-Treatment

Code	Description	Severity	New Severity
T345	TRTMT - TSS 5.4.1.c.9 - Chlorine Gas - Neutralize Chlorine Gas; 40 CFR 141.403 and TSS 5.4.1.c.9 - Where chlorine gas is used, the room shall be constructed to provide the following: where deemed necessary by the reviewing authority, provision shall be made to chemically neutralize chlorine gas before discharge from the water treatment plant building into the environment. Such equipment shall be designed as part of the chlorine gas storage and feed areas to automatically engage in the event of any measured chlorine release. The equipment shall be sized to treat the entire contents of the largest storage container on site.; 401 403;188	MIN	REC
T352	TRTMT - TSS 5.4.3.b.3 - Sodium Chlorite - Drum Recycling/Reuse; TSS 5.4.3.b.3 - Storage drums must be thoroughly flushed prior to recycling or disposal.; 220;195	MIN	REC
T355	TRTMT - TSS 5.4.3.c.4 - Sodium Chlorite - Feed Line Installation; TSS 5.4.3.c.4 - Feed lines shall be installed in a manner to prevent formation of gas pockets and shall terminate at a point of positive pressure.; 220;198	MIN	SIG
T365	TRTMT - TSS 5.4.5.2.c - Ammonia - Aqua Ammonia Room Exhaust Fan; 40 CFR 141.403 and TSS 5.4.5.2.c - The aqua ammonia room shall be equipped as in Section 5.4.1 with the following changes: An exhaust fan shall be installed to withdraw air from high points in the room and makeup air shall be allowed to enter at a low point.; 200;208	MIN	MIN
T369	TRTMT - TSS 5.4.5.3.c - Ammonia - Anhydrous Ammonia Room Exhaust Fan; 40 CFR 141.403 and TSS 5.4.5.3.c - An emergency air exhaust system, as in Section 5.4.1c but with an elevated intake, shall be provided in the ammonia storage room.; 200;212	MIN	MIN
T372	TRTMT - TSS 6.2.3 - Stairways and Ladders Required; 40 CFR 141.403 and TSS 6.2.3 - Stairways and ladders shall be provided between all floors, and in pits or compartments which must be entered and have handrails on both sides, and treads of non-slip material. Stairs are preferred in areas where there is frequent traffic or where supplies are transported by hand. They shall have risers not exceeding nine inches and treads wide enough for safety.;281	MIN	REC
T373	TRTMT - TSS 6.2.5 - Ventilation; 40 CFR 141.403 and TSS 6.2.5 - Adequate ventilation shall be provided for all pumping stations for operator comfort and dissipation of excess heat from the equipment.;282	MIN	REC
T374	TRTMT - TSS 9.2 - Waste Residuals - Brine Waste; TSS 9.2 - Waste from ion exchange plants, demineralization plants, or other plants which produce a brine, may be disposed of by controlled discharge to a stream if adequate dilution is available. Surface water quality requirements of the regulatory agency will control the rate of discharge. Except when discharging to large waterways, a holding tank of sufficient size should be provided to allow the brine to be discharged over a twenty-four hour period. Where discharging to a sanitary sewer, a holding tank may be required to prevent the overloading of the sewer and/or interference with the waste treatment processes. The effect of brine discharge to sewage lagoons may depend on the rate of evaporation from the lagoons.; 460 500;215	MIN	REC
T242	TRTMT - TSS 4.4.1.7 - Softening - Sludge Disposal; 40 CFR 141.403 and TSS 4.4.1.7 - Provisions must be included for proper disposal of softening sludges.; 460 500;120	MIN	MIN
T294	TRTMT - TSS 4.9.4.b - Powdered Activated Carbon - Dry Feed Properly Wetted; TSS 4.9.4.b - The carbon can be added as a pre-mixed slurry or by means of a dry-feed machine as long as the carbon is properly wetted.; 125;172	MIN	MIN
T295	TRTMT - TSS 4.9.4.d - Powdered Activated Carbon - Dust Control; TSS 4.9.4.d - Provisions shall be made for adequate dust control.; 125;173	MIN	REC
T201	TRTMT - TSS 4.3.6 - Disinfection - Housing; 40 CFR 141.403 and TSS 4.3.6 - Adequate housing must be provided for the chlorination equipment and for storing the chlorine (See Part 5).;245	MIN	MIN

Public Water System Deficiency List

Category: O2-Treatment

Code	Description	Severity	New Severity
T202	TRTMT - TSS 4.3.7.10.a - Disinfection - Ozone - Safety - Max Ozone Exposure; 40 CFR 141.403 and TSS 4.3.7.10.a - For safety the maximum allowable ozone concentration in the air to which workers may be exposed must not exceed 0.1 ppm (by volume).; 541 543;80	MIN	REC
T203	TRTMT - TSS 4.3.7.10.d - Disinfection - Ozone - Safety - Emergency Fans; 40 CFR 141.403 and TSS 4.3.7.10.d - Emergency exhaust fans must be provided in the rooms containing the ozone generators to remove ozone gas if leakage occurs.; 541 543;81	MIN	MIN
T204	TRTMT - TSS 4.3.7.10.e - Disinfection - Ozone - Safety - Portable Purge Air Blower; 40 CFR 141.403 and TSS 4.3.7.10.e - A portable purge air blower that will remove residual ozone in the contactor prior to entry for repair or maintenance should be provided.; 541 543;82	MIN	REC
T337	TRTMT - TSS 5.4.1.b - Specific Chemicals - Chlorine Gas Cylinders; 40 CFR 141.403 and TSS 5.4.1.b - Full and empty cylinders of chlorine gas should be isolated from operating areas, restrained in position to prevent upset, stored in rooms separate from ammonia storage, and stored in areas not in direct sunlight or exposed to excessive heat.; 200 220 401 403;180	REC	MIN
T310	TRTMT - TSS 5.1.10.f - Chemical Application - Solution Tanks - Overflow Pipes; TSS 5.1.10.f - Overflow pipes, when provided, should be turned downward, with the end screened, have a free fall discharge, and be located where noticeable.;258	REC	REC
T315	TRTMT - TSS 5.1.11.c - Day Tank Capacity; TSS 5.1.11.c - Day tanks should hold no more than a 30 hour supply.;263	REC	REC
T324	TRTMT - TSS 5.1.2.g - Process Control for Coagulant Addition; TSS 5.1.2.g - Where conditions warrant, for example with rapidly fluctuating intake turbidity, coagulant and coagulant aid addition may be made according to turbidity, streaming current, or other sensed parameter.; 240 360 660;178	REC	REC
T346	TRTMT - TSS 5.4.1.d - Chlorine Gas - Rooms Temperature Control; 40 CFR 141.403 and TSS 5.4.1.d - Chlorinator rooms should be heated to 60 degrees Fahrenheit, and be protected from excessive heat. Cylinders and gas lines should be protected from temperatures above that of the feed equipment.; 401 403;189	REC	REC
T116	TRTMT - TSS 4.1.2.b - Rapid Mix - Detention Period; TSS 4.1.2.b - The detention period should be not more than thirty seconds.; 240 360 660 600;4	REC	REC
T118	TRTMT - TSS 4.1.3.b - Clarification - Flocculation - Detention; TSS 4.1.3.b - The flow-through velocity should be not less than 0.5 nor greater than 1.5 feet per minute with a detention time for floc formation of at least 30 minutes.; 240 360 660;6	REC	REC
T134	TRTMT - TSS 4.1.5.6.a - Clarification - Solids Contact Unit - Sludge Concentrators; TSS 4.1.5.6.a - The equipment should provide either internal or external concentrators in order to obtain a concentrated sludge with a minimum of waste water.; 240 360 660;22	REC	REC
T137	TRTMT - TSS 4.1.5.9 - Clarification - Solids Contact Unit - Detention Time; TSS 4.1.5.9 - The detention time shall be established on the basis of the raw water characteristics and other local conditions that affect the operation of the unit. Based on design flow rates, the detention time should be. (a) two to four hours for suspended solids contact clarifiers and softeners treating surface water. (b) one to two hours for the suspended solids contact softeners treating only groundwater.; 240 360 660;25	REC	REC
T238	TRTMT - TSS 4.4.1.3 - Softening - Chemical Feed Point; TSS 4.4.1.3 - Lime and recycled sludge should be fed directly into the rapid mix basin.; 460 500;116	REC	REC
T241	TRTMT - TSS 4.4.1.6.b - Sludge Collection; TSS 4.4.1.6.b - Sludge recycling to the rapid mix should be provided.; 240 360 660 600;119	REC	REC

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Category: 02-Treatment

Code	Description	Severity	New Severity
T247	TRTMT - TSS 4.4.2.13.b - Softening - Brine and Salt Storage Tanks - Water Inlet; TSS 4.4.2.13.b - The make-up water inlet must be protected from back-siphonage. Water for filling the tank should be distributed over the entire surface by pipes above the maximum brine level in the tank. The tanks should be provided with an automatic declining level control system on the make-up water line.; 460 500;125	REC	REC
T250	TRTMT - TSS 4.4.2.13.e - Softening - Wet Salt Storage Tanks; TSS 4.4.2.13.e - Two wet salt storage tanks or compartments designed to operate independently should be provided.; 460 500;128	REC	REC
T252	TRTMT - TSS 4.4.2.14 - Softening - Salt and Brine Storage Capacity; TSS 4.4.2.14 - Total salt storage should have sufficient capacity to store in excess of 1.5 carloads or truckloads of salt, and provide for at least 30 days of operation.; 460 500;130	REC	REC
T253	TRTMT - TSS 4.4.2.15 - Softening - Brine Pump or Eductor; TSS 4.4.2.15 - An eductor may be used to transfer brine from the brine tank to the softeners. If a pump is used, a brine measuring tank or means of metering should be provided to obtain proper dilution.; 460 500;131	REC	REC
T257	TRTMT - TSS 4.4.2.4 - Softening - Depth of Resin; TSS 4.4.2.4 - The depth of the exchange resin should not be less than three feet.; 460 500;135	REC	REC
T259	TRTMT - TSS 4.4.2.6 - Softening - Freeboard; TSS 4.4.2.6 - The freeboard will depend upon the size and specific gravity of the resin and the direction of water flow. Generally, the washwater collector should be 24 inches above the top of the resin on downflow units.; 460 500;137	REC	REC
T261	TRTMT - TSS 4.4.2.8 - Softening - Brine Distribution; TSS 4.4.2.8 - Facilities should be included for even distribution of the brine over the entire surface of both upflow and downflow units.; 460 500;139	REC	REC
T263	TRTMT - TSS 4.4.3 - Softening - Water Quality Test Equipment; TSS 4.4.3 - Test equipment for alkalinity, total hardness, carbon dioxide content, and pH should be provided to determine treatment effectiveness.; 460 500;141	REC	REC
T284	TRTMT - TSS 4.7.2.I - Fluoridation - Saturator Type; TSS 4.7.2.I - Saturators should be of the upflow type and be provided with a meter and backflow protection on the makeup water line.; 380;162	REC	REC
T288	TRTMT - TSS 4.8.1.a.1 - Stabilization - Recarb Basin Detention Time; TSS 4.8.1.a.1 - Recarbonation basin design should provide for a total detention time of twenty minutes.; 740 741 742;166	REC	REC
T289	TRTMT - TSS 4.8.1.a.2 - Stabilization - Recarb Basin Design; TSS 4.8.1.a.2 - Recarbonation basin design should provide for two compartments, with a depth that will provide a diffuser submergence of not less than 7.5 feet nor greater submergence than recommended by the manufacturer as follows: (a) a mixing compartment having a detention time of at least three minutes. (b) a reaction compartment.; 740 741 742;167	REC	REC
T293	TRTMT - TSS 4.9.4.a - Powdered Activated Carbon Addition Early in Treatment; TSS 4.9.4.a - Powdered activated carbon should be added as early as possible in the treatment process to provide maximum contact time. Flexibility to allow the addition of carbon at several points is preferred. Activated carbon should not be applied near the point of chlorine or other oxidant application.; 125;171	REC	REC
T296	TRTMT - TSS 4.9.4.e - Powdered Activated Carbon - Rate of Feed; TSS 4.9.4.e - The required rate of feed of carbon in a water treatment plant depends upon the tastes and/or odors involved, but provision should be made for adding from 0.1 milligrams per liter to at least 40 milligrams per liter.; 125;174	REC	REC

Public Water System Deficiency List

Category: 02-Treatment

Code	Description	Severity	New Severity
T297	TRTMT - TSS 4.9.4.f - Powdered Activated Carbon - Combustible Material; 40 CFR 141.403 and TSS 4.9.4.f - Powdered activated carbon shall be handled as a potentially combustible material. It should be stored in a building or compartment as nearly fireproof as possible. Other chemicals should not be stored in the same compartment. A separate room should be provided for carbon feed installations. Carbon feeder rooms should be equipped with explosion-proof electrical outlets, lights, and motors.; 125;175	REC	REC
T193	TRTMT - TSS 4.3.1.4 - Chlorination - Automatic Switch-Over; TSS 4.3.1.4 - Automatic switch-over of chlorine cylinders should be provided, where necessary, to assure continuous disinfection.; 401 403;77	REC	REC
T194	TRTMT - TSS 4.3.1.5 - Disinfection - Chlorination - Automatic Proportioning; TSS 4.3.1.5 - Automatic proportioning chlorinators will be required where the rate of flow or chlorine demand is not reasonably constant.;240	REC	REC
T195	TRTMT - TSS 4.3.1.6 - Disinfection - Chlorination Equipment - Eductor; TSS 4.3.1.6 - Each eductor must be selected for the point of application with particular attention given to the quantity of chlorine to be added, the maximum injector waterflow, the total discharge back pressure, the injector operating pressure, and the size of the chlorine solution line. Gauges for measuring water pressure and vacuum at the inlet and outlet of each eductor should be provided.; 200 220 401 403;78	REC	REC
T410	TSS 2.14 - Piping Color Code; TSS 2.14 - To facilitate identification of piping in plants and pumping stations it is recommended that the following color scheme be utilized: (See page 12 of TSS 2003). In situations where two colors do not have sufficient contrast to easily differentiate between them, a six-inch band of contrasting color should be on one of the pipes at approximately 30 inch intervals. The name of the liquid or gas should also be on the pipe. In some cases it may be advantageous to provide arrows indicating the direction of flow.;	REC	REC
T415	TSS 4.2.2.3.k - Filtration - Rapid Pressure - Details of Design; 40 CFR 141.403 and TSS 4.2.2.3.k - The filters shall be designed to provide for construction to prevent cross-connection.;	REC	REC

Public Water System Deficiency List

Category: 03-Distribution System

Code	Description	Severity	New Severity
CC11	LAC 51:XII.343.A - No Physical Connection with Non-Potable Source; 40 CFR 141.403 and LAC 51:XII.343.A - There shall be no physical connection between a public water supply and any other water supply which is not of equal sanitary quality and under an equal degree of official supervision. and there shall be no connection or arrangement by which unsafe water may enter a public water supply system.;25	SIG	SIG
CC12	LAC 51:XII.343.B - Air Gap between Potable and Non-Potable; 40 CFR 141.403 and LAC 51:XII.343.B - Water from any potable water supply complying with these requirements may be supplied to any other system containing water of questionable quality only by means of any independent line discharging not less than a distance equal to two times the pipe diameter or inches, whichever is greater, above the overflow level of storage units open to atmospheric pressure or by other methods approved by the state health officer.;26	SIG	SIG
CC13	LAC 51:XII.345.A - Cross-Connections Prohibited; 40 CFR 141.403 and LAC 51:XII.345.A - There shall be no cross-connection, auxiliary intake, bypass, inter-connection or other arrangement, including overhead leakage, whereby water from a source that does not comply with these regulations may be discharged or drawn into any potable water supply which does not comply with these requirements. The use of valves, including check or back pressure valves, is not considered protection against return flow, or back-siphonage, or for the prevention of flow of water from an unapproved source into an approved system.;27	SIG	SIG
CC14	LAC 51:XIV.609.D.1 - LSPC - Backflow Preventer Installation; 40 CFR 141.403 and LAC 51:XIV.608.D.1 - Reduced pressure zone (RPZ) type backflow preventers, and other types of backflow preventers with atmospheric ports and/or test cocks, shall not be installed below grade (in vaults or pits) where the potential for a relief valve, an atmospheric port, or a test cock being submerged exists.;28	SIG	SIG
CC15	LAC 51:XIV.609.F.4 - LSPC - Responsibility of Water Suppliers; 40 CFR 141.403 and LAC 51:XIV.609.F.4 - As required by LAC 51:XII.344, each water supplier shall protect the water produced and distributed by its water supply system from potential contamination by ensuring compliance with the containment practices and maintenance/field testing requirements prescribed by this Part or as otherwise directed by the state health officer.;29	SIG	SIG
DS11	LAC 51:XII.335.A - Leaks in Distribution System; 40 CFR 141.403 and LAC 51:XII.335.A - All potable water distribution systems shall be designed, constructed, and maintained so as to prevent leakage of water due to defective materials, improper jointing, corrosion, settling, impacts, freezing, or other causes. Valves and blow-offs shall be provided so that necessary repairs can be made with a minimum interruption of service.;31	SIG	SIG
DS12	LAC 51:XII.335.C - Water Piping Quality; 40 CFR 141.403 and LAC 51:XII.335.C - All potable water pipes, pipe related products and materials that join or seal pipes and pipe related products shall be evaluated and listed as conforming with a national consensus product (or material) standard, ANSI/NSF Standard 61, and NSF/ANSI 372. Any solder or flux which is used in the installation or repair of any public water system or any plumbing system in a residential or nonresidential facility providing for human consumption shall be lead free.;32	SIG	SIG
DS13	LAC 51:XII.335.D - Low Pressure Protection from Pumps; 40 CFR 141.403 and LAC 51:XII.335.D - Where pumps are used to draw water from a water supply distribution system or are placed in a system to increase the line pressure, provision must be made to limit the pressure on the suction side of the pump to not less than 15 pounds per square inch gauge. Where the use of automatic pressure cut-offs is not possible, such pumps must draw water from a tank, supplied with water from a water distribution system through an air gap as per Part XIV of this Code.;33	SIG	SIG

Public Water System Deficiency List

Category: 03-Distribution System

Code	Description	Severity	New Severity
DS14	LAC 51:XII.339.A - Protection of Suction Pipes from Contamination; 40 CFR 141.403 and LAC 51:XII.339.A - All subsurface suction piping, such as that leading from detached wells or reservoirs, shall be protected against the entrance of contamination.;34	SIG	SIG
DS15	LAC 51:XII.339.B - Valve Boxes on Suction Pipes; 40 CFR 141.403 and LAC 51:XII.339.B - Valve boxes shall be provided for valves on buried suction lines. Every such valve box shall project at least 6 inches above the floor if in a room or building, and at least 12 inches above the ground if not enclosed in a building. The top of the box shall be provided with a cover with overlapping edges.;35	SIG	SIG
DS16	LAC 51:XII.341.A - Water and Sewer Main Separation; 40 CFR 141.403 and LAC 51:XII.341.A - Sewer and water mains shall be laid in separate trenches not less than 6 feet apart horizontally, when installed in parallel. Crossing water and sewer mains shall have a minimum vertical separation of 18 inches. In cases where it is not possible to maintain a 6 foot horizontal separation, the state health officer may allow a waiver of this requirement on a case by case basis if supported by data from the design engineer.;36	SIG	SIG
DS17	LAC 51:XII.903.B - Coliform Routine Compliance Monitoring; 40 CFR 141.403 and LAC 51:XII.903.B - The water supply must provide suitable taps which draw water directly from the mains or the service lines. Such taps provide for samples which are most representative of the quality of water provided without "interference" which may be caused by plumbing problems within residences or other structures. Use of such taps decreases the chance of "bad samples" resulting in a coliform maximum contaminant level (MCL) violation which requires public notification by the public water supply and an administrative enforcement action by the EPA/DHH against the public water supply.;37	SIG	SIG
DS18	LAC 51:XIV.303.F - LSPC - Water Piping Quality; 40 CFR 141.403 and LAC 51:XIV.303.F - All potable water pipes, pipe related products and materials that join or seal pipes and pipe related products shall be evaluated and listed as conforming with a national consensus product (or material) standard and ANSI/NSF Standard 61.;38	SIG	SIG
DS19	LAC 51:XIV.609.B - LSPC - Approval of Devices and Installation for Backflow; 40 CFR 141.403 and LAC 51:XIV.609.B - Devices for the prevention of backflow or back-siphoning shall comply with the standards listed in Table 609 of this code. Devices installed in a potable water supply for protection against backflow shall be maintained in good working condition by the person or persons having control of such devices.;39	SIG	SIG
DS20	LAC 51:XIV.609.C.4.a - LSPC - Hose Bibbs and Outlets; LAC 51:XIV.609.C.4.a - Fixture valve outlets with hose attachments, hose bibbs, and lawn hydrants shall be protected against backflow by an air gap, a vacuum breaker or other approved back-siphonage backflow preventer on the discharge side of the valve.;40	SIG	SIG
DS21	LAC 51:XIV.609.F.9.c - LSPC - Frequency of Field Testing for Backflow Devices; 40 CFR 141.403 and LAC 51:XIV.609.F.9.c - The backflow prevention assemblies and methods specified in 609.F.9.a of this code shall be field tested: (i) upon installation. (ii) when cleaned repaired or overhauled. (iii) when relocated. (iv) annually. (v) as required by the Plumbing Official. (vi) as required by the water supplier for assemblies or methods providing containment protection for their water supply system.;41	SIG	SIG
DS22	TSS 8.1.1.a - Materials - Standards and Materials Selection; 40 CFR 141.403 and TSS 8.1.1.a - All materials including pipe, fittings, valves and fire hydrants shall conform to the latest standards issued by the AWWA and ANSI/NSF, where such standards exist, and be acceptable to the reviewing authority.;42	SIG	SIG
DS23	TSS 8.1.4 - Materials - Joints; 40 CFR 141.403 and TSS 8.1.4 - Packing and jointing materials used in the joints of pipe shall meet the standards of AWWA and the reviewing authority. Pipe having mechanical joints or slip-on joints with rubber gaskets is preferred. Gaskets containing lead shall not be used. Repairs to lead-joint pipe shall be made using alternative methods. Manufacturer approved transition joints shall be used between dissimilar piping materials.;43	SIG	SIG

Public Water System Deficiency List

Category: 03-Distribution System

Code	Description	Severity	New Severity
DS24	TSS 8.2.2 - System Design - Diameter; 40 CFR 141.403 and TSS 8.2.2 - The minimum size of water main which provides for fire protection and serving fire hydrants shall be six-inch diameter. The minimum size of water main in the distribution system where fire protection is not to be provided should be a minimum of three (3) inch diameter. Any departure from minimum requirements shall be justified by hydraulic analysis and future water use, and can be considered only in specific circumstances.;44	SIG	SIG
DS25	TSS 8.2.4.b - System Design - Dead Ends; 40 CFR 141.403 and TSS 8.2.4.b - Dead end mains shall be equipped with a means to provide adequate flushing.;45	SIG	MIN
DS26	TSS 8.5.1 - Air Relief Valves; 40 CFR 141.403 and TSS 8.5.1 - At high points in water mains where air can accumulate provisions shall be made to remove the air by means of air relief valves.;46	SIG	MIN
DS27	TSS 8.5.2.b - Air Relief Valves - Air Relief Valve Piping - Manual; 40 CFR 141.403 and TSS 8.5.2.b - The open end of an air relief pipe from a manually operated valve should be extended to the top of the pit and provided with a screened, downward-facing elbow if drainage is provided for the manhole.;47	SIG	SIG
DS28	TSS 8.5.2.c - Air Relief Valves - Air Relief Valve Piping - Automatic; 40 CFR 141.403 and TSS 8.5.2.c - The open end of an air relief pipe from automatic valves shall be extended to at least one foot above grade and provided with a screened, downward-facing elbow.;48	SIG	SIG
DS29	TSS 8.5.2.d - Air Relief Valves - Air Relief Valve Piping - Connections; 40 CFR 141.403 and TSS 8.5.2.d - Discharge piping from air relief valves shall not connect directly to any storm drain, storm sewer, or sanitary sewer.;49	SIG	SIG
DS30	TSS 8.6 - Valve, Meter and Blow-Off Chambers; 40 CFR 141.403 and TSS 8.6 - Wherever possible, chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances to a distribution system, shall not be located in areas subject to flooding or in areas of high groundwater. Such chambers or pits should drain to the ground surface, or to absorption pits underground. The chambers, pits and manholes shall not connect directly to any storm drain or sanitary sewer. Blow-offs shall not connect directly to any storm drain or sanitary sewer.;50	SIG	SIG
DS31	TSS 8.7.2 - Installation of Water Mains - Bedding; 40 CFR 141.403 and TSS 8.7.2 - A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a depth of at least six inches below the bottom of the pipe.;51	SIG	REC
DS32	TSS 8.7.3 - Installation of Water Mains - Cover; 40 CFR 141.403 and TSS 8.7.3 - Water mains shall be covered with sufficient earth or other insulation to prevent freezing.;52	SIG	SIG
DS33	TSS 8.7.4 - Installation of Water Mains - Blocking; 40 CFR 141.403 and TSS 8.7.4 - All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designated to prevent movement.;53	SIG	MIN
DS34	TSS 8.9.1 - Surface Water Crossing - Above Water Crossing; 40 CFR 141.403 and TSS 8.9.1 - The pipe shall be adequately supported and anchored, protected from damage and freezing, and accessible for repair or replacement.;54	SIG	SIG

Public Water System Deficiency List

Category: 03-Distribution System

Code	Description	Severity	New Severity
DS35	TSS 8.9.2 - Surface Water Crossing - Underwater Crossings; 40 CFR 141.403 and TSS 8.9.2 - A minimum cover of two feet shall be provided over the pipe. When crossing water courses which are greater than 15 feet in width, the following shall be provided: the pipe shall be of special construction, having flexible, restrained or welded watertight joints, valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair. the valves shall be easily accessible, and not subject to flooding, and permanent taps or other provisions to allow insertion of a small meter to determine leakage and obtain water samples shall be made on each side of the valve closest to the supply source.;55	SIG	MIN
DS36	LAC 51:XII.335.E - Minimum Pressure 15 psi; 40 CFR 141.403 and LAC 51:XII.335.E - All public water supplies shall be operated and maintained to provide a minimum positive pressure of 15 pounds per square inch gauge at all service connections at all times.;56	SIG	SIG
DS46	TSS 8.2.1 - Pressure; 40 CFR 141.403 and TSS 8.2.1 - All water mains, including those not designed to provide fire protection, shall be sized after a hydraulic analysis based on flow demands and pressure requirements. The system shall be designed to maintain a minimum pressure of 20 psi (140 kPa) at ground level at all points in the distribution system under all conditions of flow. The normal working pressure in the distribution system should be approximately 60 to 80 psi (410 - 550 kPa) and not less than 35 psi (240 kPa).;	SIG	REC
CC17	LAC 51:XII.344 - LSPC - Protection of Water Supply/Containment Practices; 40 CFR 141.403 and LAC 51:XII.344 - Each water supplier shall protect the water produced and distributed by its water supply system from potential contamination by ensuring compliance with the containment practices and maintenance/field testing requirements prescribed in LAC 51:XIV.609.F or as otherwise directed by the state health officer. In implementing ordinances, rules, contracts, policies, or other steps to achieve such compliance, water suppliers shall have the authority to prohibit or discontinue water service to customers who fail to install, maintain, field test, or report the results of the field test for containment assemblies or methods in accordance with LAC 51:XIV609.F.9.;	SIG	SIG
CC18	LAC 51:XIV.607.A - LSPC - Color Code Identification of Nonpotable Water Piping; 40 CFR 141.403 and LAC 51:XIV.607.A - Piping and outlets conveying nonpotable water shall be adequately and durably identified by a distinctive yellow-colored paint so that it is readily distinguished from piping carrying potable water.;	SIG	SIG
CC19	LAC 51:XIV.607.A.1 - LSPC - Reclaimed Water; 40 CFR 141.403 and LAC 51:XIV.607.A.1 - Where reclaimed water is piped or used, piping and outlets conveying this particular type of nonpotable water shall be adequately and durably identified by a distinctive purple-colored paint (or, in lieu of paint, the purple color may be manufactured integral to the pipe) so that it is readily distinguished from piping carrying potable water.;	SIG	SIG
CC20	LAC 51:XIV.607.A.1 - LSPC - Nonpotable Water; 40 CFR 141.403 and LAC:XIV.607.A.2 - In those instances when it is not feasible to paint the entire length of the nonpotable water pipe, each nonpotable pipe shall be minimally identified with the words "caution: nonpotable water, - do not drink" in black lettering on a band of yellow-colored paint as background to designate that the liquid being conveyed therein is nonpotable. Such identification shall not be concealed by pipe insulation and when insulated the insulation shall be painted the same color as is required for the pipe. Maintenance of all identification shall be the responsibility of the owner.;	SIG	SIG
CC21	LAC 51:XIV.607.B - LSPC - Contents Identification; 40 CFR 141.403 and LAC:XIV.607.B - Where any type of nonpotable water is used, all valves, branch fittings and branch terminals shall be minimally identified by the words "caution: nonpotable water, - do not drink" in black lettering on a yellow background. This identification shall be done in accordance with ASME A 13.1. Besides the caution statement, the contents (i.e., the specific nonpotable liquid) may also be identified on the legend.;	SIG	SIG

Public Water System Deficiency List

Category: 03-Distribution System

Code	Description	Severity	New Severity
DS45	TSS 8.3 - Distribution System - Valves; 40 CFR 141.403 and TSS 8.3 - A sufficient number of valves shall be provided on water mains to minimize inconvenience and sanitary hazards during repairs. Valves should be located at not more than 500 foot intervals in commercial districts and at not more than one block or 800 foot intervals in other districts. Where systems serve widely scattered customers and where future development is not expected, the valve spacing should not exceed one mile.;	MIN	MIN
DS41	Corrosion- Water Pipes; The water pipes are showing signs of corrosion. This corrosion can result in leaks if not treated. The water pipes are to be cleaned and treated to prevent further corrosion.;	REC	REC
DS44	Compile ID Plan; This office recommends that a single document titled "Potable Water Distribution Identification Plan" be compiled from the multiple referenced documents.;	REC	REC
DS42	Formal Cross Connection Control Survey; Louisiana Revised Statute 40:4.12.b.1.c.iii requires that a formal cross connection control survey be performed by a "qualified individual". This office recommends that the formal cross connection control survey be conducted by an individual/entity formally trained in cross connection identification and control measures.;	REC	SIG
DS43	Potable Water Distribution ID Plan; Please ensure that the Potable Water Distribution Identification Plan is distributed to all employees and contractors and subcontractors working at the facility in accordance with R.S.40:4.12.B.3.;	REC	SIG

Public Water System Deficiency List

Category: 04-Finished Water Storage

Code	Description	Severity	New Severity
SE12	LAC 51:XII.315.B - Fencing; 40 CFR 141.403 and LAC 51:XII.315.B - All public water supply wells, treatment units, tanks, etc., shall be located inside a fenced area that is capable of being locked and areas shall be locked when unattended. The fence shall be resistant to climbing and at least 6 feet high.;144	SIG	SIG
SE16	TSS 7.0.4 - Storage Facility Security; 40 CFR 141.403 and TSS 7.0.4 - Fencing, locks on access manholes, and other necessary precautions shall be provided to prevent trespassing, vandalism, and sabotage.;148	SIG	SIG
ST28	TSS 7.0.7 - Overflow Required; 40 CFR 141.403 and TSS 7.0.7 - No overflow may be connected directly to a sewer or a storm drain. All overflow pipes shall be located so that any discharge is visible.;191	SIG	MIN
ST29	TSS 7.0.7.b - Ground Storage Overflow; 40 CFR 141.403 and TSS 7.0.7.b - The overflow for a ground- level storage reservoir shall open downward and be screened with twenty-four mesh non-corrodible screen. The screen shall be installed within the overflow pipe at a location least susceptible to damage by vandalism. If a flapper valve is used, a screen shall be provided inside the valve.;192	SIG	SIG
ST30	TSS 7.0.7.c - Elevated Storage Overflow; 40 CFR 141.403 and TSS 7.0.7.c - The overflow for an elevated tank shall open downward and be screened with a four mesh, non-corrodible screen. The screen shall be installed within the overflow pipe at a location least susceptible to damage by vandalism. If a flapper is used, a screen shall be provided inside the valve.;193	SIG	SIG
ST31	TSS 7.0.7.d - Overflow Diameter; 40 CFR 141.403 and TSS 7.0.7.d - The overflow pipe shall be of sufficient diameter to permit waste of water in excess of the filling rate.;194	SIG	SIG
ST32	TSS 7.0.8.1.a - Elevated Storage Access Manhole; 40 CFR 141.403 and TSS 7.0.8.1.a - At least one of the access manholes shall be framed at least four inches above the surface of the roof at the opening. They shall be fitted with a solid water tight cover which overlap the framed opening and extends down around the frame at least two inches, shall be hinged on one side, and shall have a locking device.;195	SIG	SIG
ST33	TSS 7.0.8.2.a-b - Ground Storage Access Manhole; 40 CFR 141.403 and TSS 7.0.8.2.a-b - Each manhole shall be elevated at least 24 inches above the top of the tank or covering sod, whichever is higher, and. Each manhole shall be fitted with a solid water tight cover which overlaps a framed opening and extends down around the frame at least two inches. The frame shall be at least four inches high. Each cover shall be hinged on one side, and shall have a locking device.;196	SIG	SIG
ST34	TSS 7.0.9.a - Vents Exclude Surfacewater and Rainwater; 40 CFR 141.403 and TSS 7.0.9.a - Finished water storage structures shall be vented. The overflow pipe shall not be considered a vent. Open construction between the sidewall and roof is not permissible. Vents shall prevent the entrance of surface water and rainwater.;197	SIG	SIG
ST35	TSS 7.0.9.b - Vents Exclude Bird and Animals; 40 CFR 141.403 and TSS 7.0.9.b - Finished water storage structures shall be vented. The overflow pipe shall not be considered a vent. Open construction between the sidewall and roof is not permissible. Vents shall exclude birds and animals.;198	SIG	SIG
ST36	TSS 7.0.9.c - Vents Should Exclude Insects and Dust; 40 CFR 141.403 and TSS 7.0.9.c - Finished water storage structures shall be vented. The overflow pipe shall not be considered a vent. Open construction between the sidewall and roof is not permissible. Vents should exclude insects and dust, as much as this function can be made compatible with effective venting.;199	SIG	SIG
ST37	TSS 7.0.9.d - Vents on Ground Storage; 40 CFR 141.403 and TSS 7.0.9.d - Finished water storage structures shall be vented. The overflow pipe shall not be considered a vent. Open construction between the sidewall and roof is not permissible. Vents shall, on ground-level structures, open downward with the opening at least 24 inches above the roof or sod and covered with twenty-four mesh non-corrodible screen. The screen shall be installed within the pipe at a location least susceptible to vandalism.;200	SIG	SIG

Public Water System Deficiency List

Category: 04-Finished Water Storage

Code	Description	Severity	New Severity
ST38	TSS 7.0.9.e - Vents on Elevated Storage and Standpipes; 40 CFR 141.403 and TSS 7.0.9.e - Finished water storage structures shall be vented. The overflow pipe shall not be considered a vent. Open construction between the sidewall and roof is not permissible. Vents shall, on elevated tanks and standpipes, open-downward, and be fitted with either four mesh non-corrodible screen, or with finer mesh non-corrodible screen in combination with an automatically resetting pressure-vacuum relief mechanism, as required by the reviewing authority.;201	SIG	SIG
ST39	TSS 7.1.2.c - Clearwell Overflow and Vent; 40 CFR 141.403 and TSS 7.1.2.c - An overflow and vent shall be provided.;202	SIG	SIG
ST40	TSS 7.1.2.d - Clearwell Minimum Two Compartments; 40 CFR 141.403 and TSS 7.1.2.d - A minimum of two clearwell compartments shall be provided.;203	SIG	REC
ST41	TSS 7.1.3 - Clearwell - Adjacent Storage; 40 CFR 141.403 and TSS 7.1.3 - Finished or treated water must not be stored or conveyed in a compartment adjacent to untreated or partially treated water when the two compartments are separated by a single wall, unless approved by the reviewing authority.;204	SIG	SIG
ST42	TSS 7.2 - Hydropneumatic Tank Systems - ASME Standard; 40 CFR 141.403 and TSS 7.2 - Pressure tanks shall meet ASME code requirements or an equivalent requirement of state and local laws and regulations for the construction and installation of unfired pressure vessels.;205	SIG	SIG
ST44	TSS 7.2.3 - Hydropneumatic Tank Systems - Bypass Piping; 40 CFR 141.403 and TSS 7.2.3 - The hydropneumatic tank(s) shall have bypass piping to permit operation of the system while the tank is being repaired or painted.;207	SIG	SIG
ST45	TSS 7.2.4 - Hydropneumatic Tank Systems - Appurtenances; 40 CFR 141.403 and TSS 7.2.4 - Each tank shall have an access manhole, a drain, and control equipment consisting of a pressure gauge, water sight glass, automatic or manual air blow-off, means for adding air, and pressure operated start-stop controls for the pumps. Where practical the access manhole should be 24 inches in diameter.;208	SIG	SIG
ST46	TSS 7.3.2 - Drainage; 40 CFR 141.403 and TSS 7.3.2 - Finished water storage structures which provide pressure directly to the distribution system shall be designed so they can be isolated from the distribution system and drained for cleaning or maintenance without causing a loss of pressure in the distribution system. The storage structure drain shall discharge to the ground surface with no direct connection to a sewer or storm drain.;209	SIG	SIG
ST47	TSS 7.3.3 - Level Controls for Distribution System Storage; 40 CFR 141.403 and TSS 7.3.3 - Adequate controls shall be provided to maintain levels in distribution system storage structures. Level indicating devices should be provided at a central location.;210	SIG	SIG
ST11	LAC 51:XII.335.A - Leaks in Storage Tank; 40 CFR 141.403 and LAC 51:XII.335.A - All potable storage facilities shall be designed, constructed, and maintained so as to prevent leakage of water due to defective materials, improper jointing, corrosion, settling, impacts, freezing, or other causes. Valves and blow-offs shall be provided so that necessary repairs can be made with a minimum interruption of service.;174	SIG	SIG
ST12	LAC 51:XII.337.A - Materials and Watertight Construction; 40 CFR 141.403 and LAC 51:XII.337.A - All cisterns and storage tanks shall be of watertight construction and made of concrete, steel or other materials approved for this purpose by the state health officer. When located wholly or partly below ground, such storage basins shall be corrosion resistant materials.;175	SIG	SIG
ST13	LAC 51:XII.337.B - Cisterns; 40 CFR 141.403 and LAC 51:XII.337.B - Cisterns used for potable water shall be provided with a rain water cut-off, suitable to deflect the first washings of the roof and prevent contamination of the water. Cisterns shall be tightly covered, and screened with 18-mesh wire screen.;176	SIG	REC

Public Water System Deficiency List

Category: 04-Finished Water Storage

Code	Description	Severity	New Severity
ST14	LAC 51:XII.337.C - Protection from Birds, Insects, and Other Contaminants; 40 CFR 141.403 and LAC 51:XII.337.C - Any vent, overflow, or water level control gauge provided on tanks or other structures containing water for any potable water supply shall be constructed so as to prevent the entrance of birds, insects, dust or other contaminating material. Openings or vents shall face downward and shall be not less than 2 feet above the floor of a pump room, the roof or cover of a tank, the ground surface or the surface of other water supply structures.;177	SIG	SIG
ST15	LAC 51:XII.337.D - Paints, Coatings, and Materials; 40 CFR 141.403 and LAC 51:XII.337.D - Paints or other materials used in the coating of the interior of cisterns, tanks, or other containers in which potable water is processed or stored shall be nontoxic to humans and shall be of such composition that the palatability of the water stored or processed shall not be adversely affected. The "Standard for Painting Steel Water Storage Tanks" published by the American Water Works Association shall be complied with. Determination of acceptability of coatings for potable water applications by the U.S. Environmental Protection Agency may be considered evidence of compliance with this Subsection.;178	SIG	SIG
ST16	TSS 7.0 - Material and Design; 40 CFR 141.403 and TSS 7.0 - The materials and designs used for finished water storage structures shall provide stability and durability as well as protect the quality of the stored water. Steel structures shall follow the current AWWA standards concerning steel tanks, standpipes, reservoirs, and elevated tanks wherever they are applicable.;179	SIG	SIG
ST17	TSS 7.0.1.b - Sizing; 40 CFR 141.403 and TSS 7.0.1.b - The minimum storage capacity (or equivalent capacity) for systems not providing fire protection shall be equal to the average daily consumption. This requirement may be reduced when the source and treatment facilities have sufficient capacity with standby power to supplement peak demands of the system.;180	SIG	SIG
ST18	TSS 7.0.10 - Roof and Sidewall - Watertight; 40 CFR 141.403 and TSS 7.0.10 - The roof and sidewalls of all water storage structures must be watertight with no openings except properly constructed vents, manholes, overflows, risers, drains, pump mountings, control ports, or piping for inflow and outflow. Particular attention shall be given to the sealing of roof structures which are not integral to the tank body.;181	SIG	SIG
ST19	TSS 7.0.10.d - Roof - Well Drained; 40 CFR 141.403 and TSS 7.0.10.d - The roof of the storage structure shall be well drained. Downspout pipes shall not enter or pass through the reservoir. Parapets, or similar construction which would tend to hold water and snow on the roof, will not be approved unless adequate waterproofing and drainage are provided.;182	SIG	SIG
ST21	TSS 7.0.16 - Ground Storage Area Grading; 40 CFR 141.403 and TSS 7.0.16 - The area surrounding a ground-level structure shall be graded in a manner that will prevent surface water from standing within 50 feet of it.;184	SIG	MIN
ST22	TSS 7.0.17 - Painting and/or Cathodic Protection; 40 CFR 141.403 and TSS 7.0.17 - Proper protection shall be given to metal surfaces by paints or other protective coatings, by cathodic protective devices, or by both.;185	SIG	SIG
ST23	TSS 7.0.19 - Provisions for Sampling; 40 CFR 141.403 and TSS 7.0.19 - Smooth-nosed sampling tap(s) shall be provided to facilitate collection of water samples for both bacteriological and chemical analyses. The sample tap(s) shall be easily accessible.;186	SIG	SIG
ST24	TSS 7.0.2.b - Protection from Flooding; 40 CFR 141.403 and TSS 7.0.2.b - The bottom of ground level reservoirs and standpipes should be placed at the normal ground surface and shall be above the 100 Year Flood or the highest flood of record.;187	SIG	SIG

Public Water System Deficiency List

Category: 04-Finished Water Storage

Code	Description	Severity	New Severity
ST25	TSS 7.0.2.c - Bottom of Storage Reservoir; 40 CFR 141.403 and TSS 7.0.2.c - If the bottom of a storage reservoir must be below normal ground surface, it shall be placed above the groundwater table. At least 50 percent of the water depth should be above grade. Sewers, drains, standing water, and similar sources of possible contamination must be kept at least 50 feet from the reservoir.;188	SIG	SIG
ST26	TSS 7.0.3 - Protection from Contamination; 40 CFR 141.403 and TSS 7.0.3 - All finished water storage structures shall have suitable watertight roofs which exclude birds, animals, insects, and excessive dust. The installation of appurtenances, such as antenna, shall be done in a manner that ensures no damage to the tank, coatings or water quality, or corrects any damage that occurred.;189	SIG	SIG
ST27	TSS 7.0.5 - Drains; 40 CFR 141.403 and TSS 7.0.5 - No drain on a water storage structure may have a direct connection to a sewer or storm drain. The design shall allow draining the storage facility for cleaning or maintenance without causing loss of pressure in the distribution system.;190	SIG	SIG
ST50	TSS 7.2 - Hydropneumatic Tank Systems; 40 CFR 141.403 and TSS 7.2 - Hydropneumatic tank storage is not to be permitted for fire protection puposes.;	SIG	SIG
ST51	TSS 7.3.3 - Level Controls for Distribution System Storage; 40 CFR 141.403 and TSS 7.3.3 - Adequate controls shall be provided to maintain levels in distribution system storage structures. Level indicating devices should be provided at a central location.;	SIG	SIG
ST43	TSS 7.2.1 - Hydropneumatic Tank Systems - Location; 40 CFR 141.403 and TSS 7.2.1 - The tank shall be located above normal ground surface.;206	MIN	SIG
ST20	TSS 7.0.12.a - Safety - Ladders, Ladder Guards, Balcony Railings, etc.; 40 CFR 141.403 and TSS 7.0.12.a - Ladders, ladder guards, balcony railings, and safely located entrance hatches shall be provided where applicable.;183	MIN	REC
ST52	TSS 7.0.7 - Overflow Required; 40 CFR 141.403 and TSS 7.0.7 - All water storage structures shall be provided with an overflow which is brought down to an elevation between 12 and 24 inches above the ground surface, and discharges over a drainage inlet structure or a splash plate.;	MIN	MIN
ST49	TSS 7.2 - Hydropneumatic Tank Systems; 40 CFR 141.403 and TSS 7.2 - Systems serving more than 150 living units should have a ground or elevated storage designed in accordance with Section 7.1 or 7.3.;	REC	REC
ST48	TSS 7.3.1 - Distribution System Storage - Pressures; 40CFR 141.403 and TSS 7.3.1 - The maximum variation between high and low levels in storage structures providing pressure to a distribution system should not exceed 30 feet. The minimum working pressure in the distribution system should be 35 psi (240 kPa) and the normal working pressure should be approximately 60 to 80 psi (410 - 550 kPa). When static pressures exceed 100 psi (690 kPa), pressure reducing devices should be provided on mains in the distribution system.;	REC	REC

Public Water System Deficiency List

Category: 05-Pumps, pump facilities, and

Code	Description	Severity	New Severity
PU43	TSS 6.6.5 - Pump Controls; 40 CFR 141.403 and TSS 6.6.5 - Pumps, their prime movers and accessories, shall be controlled in such a manner that they will operate at rated capacity without dangerous overload. Where two or more pumps are installed, provision shall be made for alternation. Provision shall be made to prevent energizing the motor in the event of a backspin cycle. Electrical controls shall be provided or other arrangements made to prevent surge pressures from activating controls which switch on pumps or activate other equipment outside the normal design cycle of operation.;141	SIG	MIN
PU44	TSS 6.6.6 - Appurtenances - Standby Power; 40 CFR 141.403 and TSS 6.6.6 - To ensure continuous service when the primary power has been interrupted, a power supply shall be provided from at least two independent sources or a standby or an auxiliary source shall be provided. If standby power is provided by onsite generators or engines, the fuel storage and fuel line must be designed to protect the water supply from contamination.;142	SIG	SIG
SE13	LAC 51:XII.315.C - Fencing; 40 CFR 141.403 and LAC 51:XII.315.C - All public water supply wells, treatment units, tanks, etc., shall be located inside a fenced area that is capable of being locked. and areas shall be locked when unattended. The fence shall be resistant to climbing and at least 6 feet high.;145	SIG	SIG
SE15	TSS 6.1.1.d - Pump Station Security; 40 CFR 141.403 and TSS 6.1.1.d - The station shall be protected to prevent vandalism and entrance by animals or unauthorized persons.;147	SIG	SIG
PU11	LAC 51:XII.329.A - Construction Prevent Contamination; 40 CFR 141.403 and LAC 51:XII.329.A - All water pumps shall be so constructed and installed as to prevent contamination of the water supply.;109	SIG	SIG
PU12	LAC 51:XII.329.A.1 - Hand-Operated Pumps; 40 CFR 141.403 and LAC 51:XII.329.A.1 - Every hand-operated pump shall have the pump head closed by a stuffing box or other suitable device to exclude contamination from the water chamber. The pump base shall be of solid one-piece recessed type of sufficient diameter and depth to admit the well casing as hereinafter provided. The top of the casing of sleeve of every well, equipped with such a pump, shall project into the base of the pump at least 1 inch above the bottom thereof and shall extend 12 inches above the level of the platform, well cover, or pump room floor on which the pump rests. The pump shall be fastened to the casing or sleeve. The pumps shall be of the self-priming type.;110	SIG	REC
PU13	LAC 51:XII.329.A.2 - Pump Support; 40 CFR 141.403 and LAC 51:XII.329.A.2 - Where pumps or pump motors are placed directly over the well, the pump or motor shall be supported on a base provided therefore. The well casing shall not be used to support pump or motor. This requirement shall not apply to submersible pumps/motors and single-pipe jet pumps/motors. The pump or motor housing shall have a solid watertight metal base without openings to form a cover for the well, recessed to admit the well casing or pump suction. The well casing or pump suction shall project into the base at least 1 inch above the level of the foundation on which the pump rests. The well casing shall project at least 12 inches above ground level or the top of the floor.;111	SIG	SIG
PU14	LAC 51:XII.329.A.3 - Pump/Casing Design Height and Seal; 40 CFR 141.403 and LAC 51:XII.329.A.3 - Where power pumps are not placed directly over the well, the well casing shall extend at least 12 inches above the floor of the pump house. In flood-prone areas the top of the casing shall extend at least 2 feet above the highest flood level which may have occurred in a 10-year period, but in no case less than 3 feet above the ground surface. The annular space between the well casing and the suction pipe shall be closed by a sanitary well seal to prevent the entrance of contamination.;112	SIG	SIG
PU15	LAC 51:XII.329.A.4 - Pump/Casing No Confined Space w/o Gravity/Approved Drainage; 40 CFR 141.403 and LAC 51:XII.329.A.4 - No well head, well casing, pump, or pumping machinery shall be located in any pit, room, or space extending below ground level, or in any room or space above the ground which is walled in or otherwise enclosed so that it does not have drainage by gravity to the surface of the ground, except in accordance with design approved by the state health officer, provided, that this shall not apply to a dug well properly constructed as herein prescribed.;113	SIG	SIG

Public Water System Deficiency List

Category: 05-Pumps, pump facilities, and

Code	Description	Severity	New Severity
PU16	LAC 51:XII.329.A.5 - Pump House Prevent Flooding. Need Drainage; 40 CFR 141.403 and LAC 51:XII.329.A.5 - All pump houses shall be properly constructed to prevent flooding, and shall be provided with floor drainage.;114	SIG	SIG
PU17	LAC 51:XII.329.A.6 - Pump Bearing Lubricated with Sanitary Lubricant; 40 CFR 141.403 and LAC 51:XII.329.A.6 - Well pump bearings shall be lubricated with oil of a safe, sanitary quality or potable water.;115	SIG	SIG
PU18	LAC 51:XII.329.A.7 - Priming only with Potable Water; 40 CFR 141.403 and LAC 51:XII.329.A.7 - Power pumps requiring priming shall be primed only with potable water.;116	SIG	SIG
PU19	LAC 51:XII.329.A.8 - Hand-Operated Pumps - Priming; 40 CFR 141.403 and LAC 51:XII.329.A.8 - Hand-operated pumps shall have cylinders submerged so that priming shall not be necessary. No pail and rope, bailer, or chain-bucket systems shall be used.;117	SIG	REC
PU20	LAC 51:XII.329.A.9 - Aerating Apparatus Installed/Operating as Approved; 40 CFR 141.403 and LAC 51:XII.329.A.9 - The air compressor and appurtenances for any airlift system or mechanical aerating apparatus used in connection with a potable ground water supply, shall be installed and operated in accordance with plans and specifications that have been approved as part of a permit issued by the state health officer.;118	SIG	SIG
PU21	TSS 6.0 - Pumping Facilities - General; 40 CFR 141.403 and TSS 6.0 - Pumping facilities shall be designed to maintain the sanitary quality of pumped water. Subsurface pits or pump rooms and inaccessible installations should be avoided. No pumping station shall be subject to flooding.;119	SIG	SIG
PU22	TSS 6.1.1.a - Location - Elevation; 40 CFR 141.403 and TSS 6.1.1.a - The station shall be elevated to a minimum of three feet above the 100-year flood elevation, or three feet above the highest recorded flood elevation, whichever is higher, or protected to such elevations.;120	SIG	SIG
PU23	TSS 6.1.1.b - Location - Accessibility; 40 CFR 141.403 and TSS 6.1.1.b - The station shall be readily accessible at all times unless permitted to be out of service for the period of inaccessibility.;121	SIG	SIG
PU24	TSS 6.1.1.c - Location - Surface Drainage; 40 CFR 141.403 and TSS 6.1.1.c - The station shall be graded around the station so as to lead surface drainage away from the station.;122	SIG	MIN
PU25	TSS 6.2.2 - Pumping Station Equipment Servicing; 40 CFR 141.403 and TSS 6.2.2 - Pump stations shall be provided with. (a) crane-ways, hoist beams, eyebolts, or other adequate facilities for servicing or removal of pumps, motors or other heavy equipment. (b) openings in floors, roofs, or wherever else needed for removal of heavy or bulky equipment. (c) a convenient tool board, or other facilities as needed, for proper maintenance of the equipment.;123	SIG	REC
PU27	TSS 6.2.b - Pumping Station Construction; 40 CFR 141.403 and TSS 6.2.b - Both raw and finished water pumping stations shall be of durable construction, fire and weather resistant and with outward-opening doors.;125	SIG	REC
PU28	TSS 6.2.c - Pumping Station Floor Elevation; 40 CFR 141.403 and TSS 6.2.c - Both raw and finished water pumping stations shall have floor elevation of at least six inches above finished grade.;126	SIG	MIN
PU29	TSS 6.2.e - Pumping Station Floor Drainage; 40 CFR 141.403 and TSS 6.2.e - Both raw and finished water pumping stations shall have all floor drained in such manner that the quality of the potable water will not be endangered. All floors shall slope to a suitable drain.;127	SIG	SIG

Public Water System Deficiency List

Category: 05-Pumps, pump facilities, and

Code	Description	Severity	New Severity
PU31	TSS 6.3.2 - Pumps - Priming Water; 40 CFR 141.403 and TSS 6.3.2 - Prime water must not be of lesser sanitary quality than that of the water being pumped. Means shall be provided to prevent either backpressure or backsiphonage backflow. When an air-operated ejector is used, the screened intake shall draw clean air from a point at least 10 feet above the ground or other source of possible contamination, unless the air is filtered by an apparatus approved by the reviewing authority. Vacuum priming may be used.;129	SIG	SIG
PU32	TSS 6.3.a - Pumping Facilities - Multiple Pumps; 40 CFR 141.403 and TSS 6.3.a - At least two pumping units shall be provided. With any pump out of service, the remaining pump or pumps shall be capable of providing the maximum pumping demand of the system. The pumping units shall have ample capacity to supply the peak demand against the required distribution system pressure without dangerous overloading.;130	SIG	SIG
PU33	TSS 6.4.1 - Booster Pumps - Duplicate Pumps; 40 CFR 141.403 and TSS 6.4.1 - Each booster pumping station shall contain not less than two pumps with capacities such that peak demand can be satisfied with the largest pump out of service.;131	SIG	SIG
PU35	TSS 6.4.a - Booster Pumps - Not Produce Negative Pressure; 40 CFR 141.403 and TSS 6.4.a - Booster pumps shall be located or controlled so that they will not produce negative pressure in their suction lines.;133	SIG	SIG
PU36	TSS 6.4.c - Booster Pumps - Low Pressure Controller; 40 CFR 141.403 and TSS 6.4.c - Booster pumps shall be located or controlled so that automatic shutoff of low pressure controller shall maintain at least 20 psi (140 kPa) in the suction line under all operating conditions, unless otherwise acceptable to the reviewing authority. Pumps taking suction from ground storage tanks shall be equipped with automatic shutoffs or low pressure controllers as recommended by the pump manufacturer.;134	SIG	SIG
PU37	TSS 6.4.d - Booster Pumps - Excessive Cycling; 40 CFR 141.403 and TSS 6.4.d - Booster pumps shall be located or controlled so that automatic or remote control devices shall have a range between the start and cutoff pressure which will prevent excessive cycling.;135	SIG	MIN
PU38	TSS 6.4.e - Booster Pumps - Bypass; 40 CFR 141.403 and TSS 6.4.e - Booster pumps shall be located or controlled so that a bypass is available.;136	SIG	SIG
PU39	TSS 6.5 - Pumping Stations - Automatic/Remote Controlled Stations; 40 CFR 141.403 and TSS 6.5 - All automatic stations should be provided with automatic signaling apparatus which will report when the station is out of service. All remote controlled stations shall be electrically operated and controlled and shall have signaling apparatus of proven performance. Installation of electrical equipment shall conform with the applicable state and local electrical codes and the National Electrical Code.;137	SIG	SIG
PU40	TSS 6.6.1 - Pumping Stations - Valving; 40 CFR 141.403 and TSS 6.6.1 - Pumps shall be adequately valved to permit satisfactory operation, maintenance and repair of the equipment. If foot valves are necessary, they shall have a net valve of at least 2.5 times the area of the suction pipe and they shall be screened. Each pump shall have a positive-acting check valve on the discharge side between the pump and the shut-off valve.;138	SIG	SIG
PU41	TSS 6.6.2 - Pumping Stations - Piping; 40 CFR 141.403 and TSS 6.6.2 - Piping shall: (a) be designed so that the friction losses will be minimized. (b) not be subject to contamination. (c) have watertight joints. (d) be protected against surge or water hammer and provided with suitable restraint joints where necessary. (e) be such that each pump has an individual suction line or that the lines shall be so manifolded that they will insure similar hydraulic and operating conditions.;139	SIG	SIG

Public Water System Deficiency List

Category: 05-Pumps, pump facilities, and

Code	Description	Severity	New Severity
PU42	TSS 6.6.3 - Appurtenances - Gauges and Meters; 40 CFR 141.403 and TSS 6.6.3 - Each pump: (a) shall have a standard pressure gauge on its discharging line. (b) shall have a compound gauge on its suction line. (c) shall have recording gauges in the larger stations. (d) should have a means for measuring the discharge. The station shall have indicating, totalizing, and recording metering of the total water pumped.;140	SIG	SIG
PU26	TSS 6.2.7 - Pumping Station Lighting; TSS 6.2.7 - Pump stations shall be adequately lighted throughout. All electrical work shall conform to the requirements of the National Electrical Code or to relevant state and/or local codes.;124	MIN	REC
PU30	TSS 6.2.f - Pumping Station Pump Gland Drainage; TSS 6.2.f - Both raw and finished water pumping stations shall provide suitable outlet for drainage from pump glands without discharging onto the floor.;128	MIN	REC
PU34	TSS 6.4.2 - Booster Pumps - Metering; TSS 6.4.2 - All booster pumping stations shall be fitted with a flow rate indicating and totalizer meter.;132	MIN	MIN

Public Water System Deficiency List

Category: 06-Monitoring, reporting and d

Code	Description	Severity	New Severity
MN14	LAC 51:XII.903.A - Coliform Sampling Plan; 40 CFR 141.403 and LAC 51:XII.903.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 the 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.;102	SIG	SIG
MO11	LAC 51:XII.1125.A.1-5 - IESWTR Disinfection Monitoring; 40 CFR 141.403 and LAC 51:XII.1125.A.1-5 - To determine compliance with disinfection inactivation requirements specified in Table of §1115.B.1 or Table 3 of §1115.B.2, as applicable, of this Chapter, each supplier shall develop and conduct a monitoring program to measure those parameters that affect the performance of the disinfection process. This shall include but not be limited to: 1. temperature of the disinfected water at each residual disinfectant concentration sampling point. 2. pH(s) of the disinfected water at each chlorine residual disinfectant concentration sampling point. 3. the disinfectant contact time(s) at peak hourly flow at each residual disinfectant concentration sampling point. 4. the residual disinfectant concentrations before or at the first customer during peak hourly flow. and 5. if the system uses more than one point of disinfectant application before the first customer, the system must determine the parameters identified in Paragraphs 1-4 of this Subsection for each individual disinfection segment immediately prior to the next point of disinfectant application during peak hourly flow so that a cumulative CT value can be determined before the treated water reaches the first customer.;103	SIG	SIG
MO12	LAC 51:XII.1127.A - Disinfection Profiling; 40 CFR 141.403 and LAC 51:XII.1127.A - All public water systems using surface water or GWUDISW as its source of water supply and serving at least 10,000 individuals shall perform a disinfection profile of its disinfection practice on a continuous basis.;104	SIG	SIG
MO13	LAC 51:XII.1127.B - Disinfection Profiling Computations and Hardcopies; 40 CFR 141.403 and LAC 51:XII.1127.B - In addition, systems subject to the requirements of Subsection A of this Section shall compute their daily total logs of inactivation utilizing a computer spread sheet format/formulas approved by DHH. The system shall retain printed disinfection profile data as daily individual spreadsheets (containing the monitoring dates, CT computation, and total log inactivation data) and in monthly/yearly graphical profile form for review as part of sanitary surveys conducted by DHH.;105	SIG	SIG
MO14	LAC 51:XII.301.B - Comply with Monitoring and Analytical Requirements; 40 CFR 141.403 and LAC 51:XII.301.B - Each public water supply shall comply with the monitoring and analytical requirements specified in the National Primary Drinking Water Regulations, the Louisiana Total Coliform Rule, the Louisiana Surface Water Treatment Rule, the Louisiana Stage I Disinfectants and Disinfection Byproducts Rule, and the Louisiana Lead and Copper Rule, as applicable.;106	SIG	SIG
CA19	LAC 51:XII.1110.A - Minimum Accuracy for pH Meter; 40 CFR 141.403 and LAC 51:XII.1110.A - pH of water within the water treatment plant shall be conducted using a pH meter having a minimum accuracy of + or - 0.2 pH units.;18	SIG	SIG
CA20	LAC 51:XII.1110.B - Calibration of Bench Top pH Meters; 40 CFR 141.403 and LAC 51:XII.1110.B - Bench top pH meters used for determining the pH of water within the water treatment plant shall be calibrated at least once each day in accordance with Section 4.a. of SM 4500-H+ B (Electrometric pH Method) of the Standard Methods for the Examination of Water and Wastewater, 19th Edition, or the manufacturer's specifications.;19	SIG	SIG
CA21	LAC 51:XII.1110.C - Validation of Bench Top pH Meters; 40 CFR 141.403 and LAC 51:XII.1110.C - The calibration of bench top pH meters shall be validated with at least one buffer solution each time a series of samples is run and, if necessary, recalibrated in accord with the requirements of Subsection B of this Section.;20	SIG	SIG

Public Water System Deficiency List

Category: 06-Monitoring, reporting and d

Code	Description	Severity	New Severity
CA22	LAC 51:XII.1110.D - Calibration of Online pH Meters; 40 CFR 141.403 and LAC 51:XII.1110.D - On-line pH meters shall be calibrated according to the manufacturer's specifications at a frequency such that the deviation observed between calibrations is typically less than + or - 0.2 pH units. The deviation is to be recorded at each calibration by recording the current process pH both before and after calibration. In no case shall calibrations of on-line pH meters be performed at a frequency of less than once each week.;21	SIG	SIG
CA23	LAC 51:XII.1111.A - Minimum Accuracy for Temperature Measuring Devices; 40 CFR 141.403 and LAC 51:XII.1111.A - Water temperature within the water treatment plant shall be measured using a thermometer, thermocouple, or other temperature measuring device having a minimum accuracy of + or - 0.25 degrees Celsius.;22	SIG	SIG
CA24	LAC 51:XII.1111.B - Validation of Temperature Measuring Devices; 40 CFR 141.403 and LAC 51:XII.1111.B - Service thermometers, thermocouples, and other temperature measuring devices used for determining water temperature within the water treatment plant shall be validated at a frequency of once per month using a field thermometer that has been calibrated annually against a NIST certified thermometer. The NIST certified thermometer shall be sent back to the manufacturer for recalibration at least once every three years.;23	SIG	SIG
CA25	LAC 51:XII.1112.A - Cleaning of Analytical Instrumentation; 40 CFR 141.403 and LAC 51:XII.1112.A - A thorough cleaning of analytical instrumentation (particularly continuous monitoring turbidimeters, disinfectant residual monitors, and pH meters) shall be performed, as necessary, prior to performing any calibration/validation. On a weekly basis, continuous monitoring turbidimeters and continuous disinfectant residual monitors shall be inspected to determine if there is any material or sedimentation in the measuring chambers. Records of such inspection/cleaning shall be kept for at least three years and such records shall include meter location (e.g., model and serial number), dates of cleaning, and the name of the person performing the cleaning.;24	SIG	SIG
MG43	LAC 51:XII.1137.A - Disinfection Profile Reporting; 40 CFR 141.403 and LAC 51:XII.1137.A - Public water systems subject to the requirements of §1127.A of this Chapter shall submit to DHH a printed report on the initial 12 consecutive months of disinfection profiling data (including daily individual spreadsheets containing the monitoring data, CT computation, and total log inactivation data) and in monthly/yearly graphical profile form as required under §1127 of this Chapter. This disinfection profiling report is due on no later than February 15, 2004.;93	SIG	SIG
MG44	LAC 51:XII.1137.B - Accept Existing Operational Data in Lieu of req.; 40 CFR 141.403 and LAC 51:XII.1137.B - On a case-by-case basis, DHH may accept existing operational data in lieu of the requirements of Subsection A of this Section if DHH determines that such data is substantially equivalent to data required to be collected under §1127 of this Chapter, Such data shall be representative of inactivation through the entire treatment plant and not just of certain treatment segments.;94	SIG	REC
MG45	LAC 51:XII.1137.C - Reporting Current Disinfection Profile Data; 40 CFR 141.403 and LAC 51:XII.1137.C - Following the submittal of the initial 12 consecutive month period report required under Subsection A of this Section, nothing herein shall be construed to prohibit DHH from requiring the public water system to submit a more current disinfection profiling data set on a case-by-case basis (e.g., when a significant change to the disinfection practice is proposed, etc.);95	SIG	SIG
MG46	LAC 51:XII.313.B - Reporting Analytical Data; 40 CFR 141.403 and LAC 51:XII.313.B - In addition, if a public water system fails to report required analytical data to the appropriate office designated by the state health officer within the applicable time limit(s) stipulated by the National Primary Drinking Water Regulations of the Interim Enhanced Surface Water Treatment Rule, and such data is required to determine a maximum contaminant level or treatment technique requirement prescribed by this Code, the public water system shall be assessed a monitoring violation and must give appropriate public notification.;96	SIG	SIG

Public Water System Deficiency List

Category: 06-Monitoring, reporting and d

Code	Description	Severity	New Severity
MG47	LAC 51:XII.1903.C - Reporting Public Notices; 40 CFR 141.403 and LAC 51:XII.1903.C - The water supply, within 10 days subsequent to the completion of each public notification shall submit to the state health officer a representative copy of each type of notice distributed, published, posted, and/or made available to the persons served by the supply and/or to the news media.;97	SIG	SIG
MG48	LAC 51:XII.321.B - Reporting NPDWR Violations; 40 CFR 141.403 and LAC 51:XII.321.B - Also, any violation of the national Primary Drinking Water Regulations shall be reported to the state health officer with 48 hours after learning of any violation.;98	SIG	SIG
MN11	LAC 51:XII.1319.A - D/DBP Monitoring Plan Required; 40 CFR 141.403 and LAC 51:XII.1319.A - Each public water system required to perform monitoring under the requirements of this Chapter shall submit a monitoring plan to the state health officer for review and approval. Such monitoring plan shall specifically be provided to the OPH district engineering office which has jurisdictional oversight of the public water system no later than the effective date of this rule.;99	SIG	SIG
MN12	LAC 51:XII.1319.B-E - D/DBP Monitoring Plan Maintenance and Location; 40 CFR 141.403 and LAC 51:XII.1319.B-E - The monitoring plan shall include a list of all routine samples required on a daily, weekly, monthly, quarterly, and annual basis and identify the sampling location where samples are to be collected. C. The public water system shall revise and re-submit its monitoring plan if changes to a plant or distribution system require changes to the sampling locations of if any significant changes to the disinfection methods are made. In addition, the public water system shall update and re-submit its monitoring plan when the system's sampling requirements or protocols change. D. Minor revisions to a system's monitoring plan shall be submitted to the state health officer upon request. E. The public water system shall maintain a copy of their approved monitoring plan at each treatment plant and at a central location.;100	SIG	SIG
MN13	LAC 51:XII.901.A - Sampling Plan - Total Coliform Rule (TCR); 40 CFR 141.403 and LAC 51:XII.901.A - Public water systems must collect total coliform samples at sites which are representative of water throughout the distribution system according to a written sample siting plan. These plans are subject to State review and revision. 40CFR 141.21(a);101	SIG	SIG
CA11	LAC 51:XII.1107.A - Calibration of Turbidimeter w/ Approved Method; 40 CFR 141.403 and LAC 51:XII.1107.A - Calibration using a turbidity primary standard shall be done in accord with approved methods listed in §1105.B.;10	SIG	SIG
CA12	LAC 51:XII.1107.B - Calibration of Turbidimeter Frequency; 40 CFR 141.403 and LAC 51:XII.1107.B - Bench top and continuous monitoring turbidimeters shall be calibrated using a turbidity primary standard at a frequency of no less than once every 90 days. The instruments shall be calibrated in accord with the manufacturer's instructions.;11	SIG	SIG
CA13	LAC 51:XII.1107.C - Validation of Bench Top Turbidimeters; 40 CFR 141.403 and LAC 51:XII.1107.C - Calibration of the bench top turbidimeters shall be validated with state-approved secondary standards each time a sample or set of samples is tested. For turbidity measurements less than 0.2 NTU and the turbidimeter reading is + or - 0 percent or more deviation of the state-approved secondary standard, the bench top turbidimeter shall be recalibrated with a turbidity primary standard. For turbidity measurements greater than or equal to 0.2 NTU and the turbidimeter reading is + or - 10 percent or more deviation of the state-approved secondary standard, the bench top turbidimeter shall be recalibrated with a turbidity primary standard.;12	SIG	SIG
CA14	LAC 51:XII.1107.D - Validation of Continuous Turbidimeters; 40 CFR 141.403 and LAC 51:XII.1107.D - Calibration of the continuous monitoring turbidimeters shall be validated at least once each week by either using a state-approved secondary standard or determining the turbidity of the water flowing out of the continuous monitoring turbidimeter. Follow-up actions based upon the validation method selected are as follows.;13	SIG	SIG

Public Water System Deficiency List

Category: 06-Monitoring, reporting and d

Code	Description	Severity	New Severity
CA15	LAC 51:XII.1107.E - Re-Standardization of Secondary Standards; 40 CFR 141.403 and LAC 51:XII.1107.E - Each time a turbidimeter has been calibrated with a turbidity primary standard, the secondary standard shall be re-standardized. When a secondary standard has been assigned an expiration date by the manufacturer, nothing herein shall be construed as to allow the re-standardization of such secondary standard beyond the expiration date set by the manufacturer.;14	SIG	SIG
CA16	LAC 51:XII.1109.A - Validation of Bench Top Disinfectant Residual Meters; 40 CFR 141.403 and LAC 51:XII.1109.A - The accuracy of bench top spectrophotometers/colorimeters used for disinfectant residual monitoring, particularly for validation of continuous disinfectant residual monitors, shall be determined at a frequency of no less than once every 90 days by use of a NIST traceable standard solution which has been obtained from an approved source (e.g., certificate of analysis by manufacturer). Deviations of + or - 10 percent or more shall be cause for calibration of the equipment. The instruments shall be calibrated in accord with the manufacturer's instructions. After calibration the instrument's accuracy shall be validated prior to return to service.;15	SIG	SIG
CA17	LAC 51:XII.1109.B - Other Methods for Disinfectant Residual Analyzers; 40 CFR 141.403 and LAC 51:XII.1109.B - For approved methods for disinfectant residual analysis other than spectrophotometric/colorimetric methods, validation/standardization of disinfectant residual analyzers shall be performed in accord with procedures outlined in the particular method.;16	SIG	SIG
CA18	LAC 51:XII.1109.C - Validation of Continuous Disinfectant Residual Analyzers; 40 CFR 141.403 and LAC 51:XII.1109.C - The accuracy of residual disinfectant measurements from any continuous disinfectant residual monitor shall be validated weekly. Validation shall be performed by collecting a grab sample from the tubing supplying water to the monitor (e.g., via a tee connection which is normally capped or valved closed) at a location immediately upstream (less than 5 feet) of the continuous disinfectant residual monitor. Such grab sample shall be analyzed using a bench top spectrophotometer/colorimeter which has been calibrated according to §1109.A of this Chapter. If the spectrophotometer/colorimeter reading indicates + or - 10 percent or more deviation as compared to the continuous disinfectant residual monitor reading, the cause of the disparity shall be investigated and resolved within 5 working days. In the meantime, grab samples shall be collected and analyzed every two hours as per §1125.B of this Chapter. The accuracy of residual disinfectant measurements from any replacement instrument shall be validated prior to service or return to service.;17	SIG	SIG
CA26	LAC 51:XII.1109.D.1 - Records of Calibrations/Validations; 40 CFR 141.403 and LAC 51:XII.1109.D.1 - Records of calibrations/validations on each bench top spectrophotometer/colorimeter used for disinfectant residual monitoring and on each continuous disinfectant residual monitor shall be maintained for at least three years, as follows.1. Records of bench top spectrophotometers/colorimeters shall include meter location, meter identification, dates and results of NIST traceable standard solution, dates of calibration/validation and the name of the person performing the calibration/validation.;	SIG	SIG
CA27	LAC 51:XII.1109.D.2 - Records of Calibrations/Validations; 40 CFR 141.403 and LAC 51:XII.1109.D.2 - Records of calibrations/validations on each bench top spectrophotometer/colorimeter used for disinfectant residual monitor shall be maintained for at least three years, as follows. 2. Records of continuous disinfectant residual monitors shall include meter location, unique meter identification (e.g., model and serial number), dates and results of calibration/validation, and the corrective actions taken when deviations of +/-10 percent or more occur.;	SIG	SIG

Public Water System Deficiency List

Category: 07-System Management

Code	Description	Severity	New Severity
T385	TSS 4.8.9 - Stabilization - Control - Lab Equipment; 40 CFR 141.403 and TSS 4.8.9 - Laboratory equipment shall be provided for determining the effectiveness of stabilization treatment.;292	SIG	SIG
T387	TSS 5.1.10.d - Chemical Application - Solution Tanks - Covers; 40 CFR 141.403 and TSS 5.1.10.d - Chemical solutions shall be kept covered. Large tanks with access openings shall have such openings curbed and fitted with overhanging covers.;294	SIG	SIG
T388	TSS 5.1.11.g - Chemical Application - Day Tanks - Labeling; 40 CFR 141.403 and TSS 5.1.11.g - Tanks and tank refilling line entry points shall be clearly labeled with the name of the chemical contained.;295	SIG	SIG
T392	TSS 5.1.2.c - Chemical Application - Feed Rates Proportional to Flow; 40 CFR 141.403 and TSS 5.1.2.c - Chemical feed rates shall be proportional to flow.;299	SIG	SIG
T393	TSS 5.1.9.b - Chemical Application - Storage of Chemicals - Labeled; 40 CFR 141.403 and TSS 5.1.9.b - Storage tanks and pipelines for liquid chemicals shall be specified for use with individual chemicals and not used for different chemicals. Offloading areas must be clearly labeled to prevent accidental cross-contamination.;300	SIG	SIG
T394	TSS 5.1.9.c - Chemical Application - Storage of Chemicals - Covers; 40 CFR 141.403 and TSS 5.1.9.c - Chemicals shall be stored in covered or unopened shipping containers, unless the chemical is transferred into an approved storage unit.;301	SIG	SIG
T395	TSS 5.2.1.a - Chemicals - Shipping Containers - Labeling; 40 CFR 141.403 and TSS 5.2.1.a - Chemical shipping containers shall be fully labeled to include chemical name, purity and concentration, and supplier name and address.;302	SIG	SIG
T397	TSS 5.3.3 - Operator Safety - Chlorine Leak Detection; 40 CFR 141.403 and TSS 5.3.3 - A bottle of concentrated ammonium hydroxide (56 per cent ammonia solution) shall be available for chlorine leak detection. where ton containers are used, a leak repair kit approved by the Chlorine Institute shall be provided. Continuous chlorine leak detection equipment is recommended. Where a leak detector is provided it shall be equipped with both an audible alarm and warning light.;304	SIG	SIG
T399	TSS 5.4.2 - Acids and Caustics; 40 CFR 141.403 and TSS 5.4.2 - Acids and caustics shall be kept in closed corrosion-resistant shipping containers or storage units and shall not be handled in open vessels, but should be pumped in undiluted form from original containers through suitable hose, to the point of treatment or to a covered day tank.;306	SIG	SIG
T400	TSS 5.4.4.a.1 - Sodium Hypochlorite - Storage Containers; 40 CFR 141.403 and TSS 5.4.4.a.1 - Sodium hypochlorite shall be stored in the original shipping containers or in sodium hypochlorite compatible containers.;307	SIG	SIG
T401	TSS 5.4.4.a.2 - Sodium Hypochlorite - Out of Sunlight; 40 CFR 141.403 and TSS 5.4.4.a.2 - Storage containers of tanks shall be sited out of the sunlight in a cool area and shall be vented to the outside of the building.;308	SIG	SIG
T375	LAC 51:XII.1129.A.1-4 - Disinfection Practice Changes; 40 CFR 141.403 and LAC 51:XII.1129.A.1-4 - Suppliers using surface water or GWUDISW as the source of water supply which decide to make a significant change to its disinfection practice shall submit plans and specifications to DHH for review and approval (in accord with the requirements of §105 of this Part) prior to making such change. Significant changes to disinfection practice are: 1. any changes to the point of disinfection. 2. any changes to the disinfectant(s) used in the treatment plant. 3. any changes to the disinfection process. or 4. any disinfection practice modification which may lower the system's ability to comply with the required minimum log inactivation attributable to disinfection as listed in Table 2 of §1115.B.A or Table 3 of §1115.B.2, as applicable, of this Chapter.;283	SIG	SIG

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Category: 07-System Management

Code	Description	Severity	New Severity
T376	TSS 4.1.e - Clarification - Manual Startup after Shutdown; 40 CFR 141.403 and TSS 4.1.e - Plants designed to include clarification for processing surface water shall be started manually following shutdown.;284	SIG	REC
T377	TSS 4.2.1.11.h - Filtration - Rapid Gravity - Backwash - Operation; 40 CFR 141.403 and TSS 4.2.1.11.h - Backwash shall be operator initiated. Automated systems shall be operator adjustable.;285	SIG	SIG
T378	TSS 4.2.4.10 - Filtration - Slow Gravity - Ripening; 40 CFR 141.403 and TSS 4.2.4.10 - Slow sand filters shall be operated to waste after scraping or rebedding during a ripening period until the filter effluent turbidity falls to consistently below the regulated drinking water standard established for the system.;286	SIG	SIG
T379	TSS 4.3.7.10.f - Disinfection - Ozone - Safety - Signs; 40 CFR 141.403 and TSS 4.3.7.10.f - A sign shall be posted indicating "No smoking, oxygen in use" at all entrances to the treatment plant. In addition, no flammable or combustible materials shall be stored within the oxygen generator areas.;287	SIG	REC
T380	TSS 4.4.1.9 - Softening - Plant Start-Up; 40 CFR 141.403 and TSS 4.4.1.9 - The plant processes must be manually started following shut-down.;288	SIG	REC
T381	TSS 4.4.2.13.a - Softening - Brine and Salt Storage Tanks - Covered; 40 CFR 141.403 and TSS 4.4.2.13.a - Salt dissolving or brine tanks and wet salt storage tanks must be covered and must be corrosion-resistant.;289	SIG	SIG
SO35	LAC 51:XII.327.A.16 - GW - Disinfect after Repair; 40 CFR 141.403 and LAC 51:XII.327.A.16 - All new wells or existing wells on which repair work has been done shall be disinfected before being put into use as prescribed in §353.A if this Part.;173	SIG	SIG
MG24	LAC 51:XII.369.E - Potable Water Supply Only for Employees; 40 CFR 141.403 and LAC 51:XII.369.E - Wherever a public water supply is available, no other supply shall be furnished for potable purposes to employees in any factory or for potable purposes to employees in any factory or industrial plant, or other place of business, unless such other supply is approved by the state health officer. If no public water supply is available, the water for potable purposes shall be of safe, sanitary quality approved by the state health officer. If the water supply for industrial or fire protection purposes is obtained entirely or in part from a source not approved for potable purposes, this supply shall be distributed through an independent piping system having no connection with the system carrying potable water. All faucets or other outlets furnishing water which is not safe for potable purposes shall be conspicuously so marked.;74	SIG	REC
MG26	TSS 2.6 - Standby Power; 40 CFR 141.403 and TSS 2.6 - Dedicated Standby power shall be required by the reviewing authority so that water may be treated and/or pumped to the distribution system during outages to meet the average day demand.;76	SIG	SIG
MG27	TSS 3.2.1.a.1 - Standby Power; 40 CFR 141.403 and TSS 3.2.1.a.1 - To ensure continuous service when the primary power has been interrupted, a standby power supply shall be provided through connection to at least two independent public power sources, or portable or in-place auxiliary power.;77	SIG	SIG
MG28	TSS 4.3.8.4 - Disinfection - Chlorine Dioxide - Public Notification; 40 CFR 141.403 and TSS 4.3.8.4 - Notification of a change in disinfection practices and the schedule for the changes shall be made known to the public. particularly to hospitals, kidney dialysis facilities and fish breeders, as chlorine dioxide and its byproducts may have similar effects s chloramines.;78	SIG	REC

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Category: 07-System Management

Code	Description	Severity	New Severity
MG29	LAC 51:XII.1107.F.1-2 - Records of Calibrations/Validations; 40 CFR 141.403 and LAC 51:XII.1107.F.1-2 - Records of calibrations/validations on each bench top and continuous monitoring turbidimeter shall be maintained for at least three years, as follows: 1. Records of bench top turbidimeters shall include meter location, meter identification, dates of calibration, and the name of the person performing the calibration. 2. Records of continuous monitoring turbidimeters shall include meter location (e.g. filter number), unique meter identification, dates of calibration, and the name of the person performing the calibration.;79	SIG	SIG
MG30	LAC 51:XII.1107.G.1-2 - Records of Re-Standardization of Secondary Standards; 40 CFR 141.403 and LAC 51:XII.1107.G.1-2 - Records of any re-standardization of secondary standards shall be maintained for at least three years, as follows: 1. Records or re-standardizations done using continuous monitoring turbidimeters shall include the value assigned to the secondary standard, date of assignment, meter location (e.g., filter number), meter identification (e.g., model and serial number) which was used to assign the secondary standard its unique value for such meter, manufacturer's expiration date, and the name of the person performing the re-standardization. 2. Records of re-standardizations done using continuous monitoring turbidimeters shall include the value assigned to the secondary standard, date of assignment, meter location (e.g., filter number), meter identification (e.g., model and serial number) which was used to assign the secondary standard its unique value for such meter, manufacturer's expiration date, and the name of the person performing the re-standardization.;80	SIG	SIG
MG31	LAC 51:XII.1109.D.1-2 - Records of Bench Top Disinfectant Residual Analyzers; 40 CFR 141.403 and LAC 51:XII.1109.D.1-2 - Records of calibrations/validations on each bench top spectrophotometer/calorimeter used for disinfectant residual monitoring and on each continuous disinfectant residual monitor shall be maintained for at least three years, as follows: 1. Records of bench top spectrophotometers/calorimeters shall include meter location, meter identification, dates and results of NIST traceable standard solution, dates of calibration/validation and the name of the person performing the calibration/validation. 2. Records of continuous disinfectant residual monitors shall include meter location, unique meter identification (e.g., model and serial number), dates and results of calibration/validation, and the corrective actions taken when deviations of + or - 10 percent or more occur.;81	SIG	SIG
MG32	LAC 51:XII.1110.E - Records of Calibrations on pH Meters; 40 CFR 141.403 and LAC 51:XII.1110.E - Records of calibrations on each pH meter shall be maintained for at least three years.;82	SIG	SIG
MG33	LAC 51:XII.1111.C - Records of Cal/Val of Temp Measuring Devices; 40 CFR 141.403 and LAC 51:XII.1111.C - Records of validations/calibrations on each temperature measuring device shall be maintained for at least three years.;83	SIG	SIG
MG34	LAC 51:XII.311.A - Daily Records Recording/Reporting; 40 CFR 141.403 and LAC 51:XII.311.A - Complete daily records of the operation of water treatment plants, including reports of laboratory control tests, shall be kept for a period of three years on forms approved by the state health officer. 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.;84	SIG	SIG
MG35	LAC 51:XII.367.A - Chlorine Residual Records; 40 CFR 141.403 and LAC 51:XII.367.A - 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.;85	SIG	SIG
MG36	LAC 51:XII.377.A.1 - Records - Microbiological, Turbidity, and Chemical; 40 CFR 141.403 and LAC 51:XII.377.A.1 - Records of microbiological analyses and turbidity analyses made pursuant to this part shall be kept for not less than 5 years. Records of chemical analyses made pursuant to this part shall be kept for not less than 10 years. 40CFR 141.33(a).;86	SIG	SIG

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Category: 07-System Management

Code	Description	Severity	New Severity
MG37	LAC 51:XII.377.A.2 - Records - Monitoring Plans; 40 CFR 141.403 and LAC 51:XII.377.A.2 - Copies of monitoring plans developed pursuant to this part shall be kept for the same period of time as the records of analyses taken under the plan are required to be kept under paragraph (a) of this section, except as specified elsewhere in this part. 40CFR 141.33(f).;87	SIG	SIG
MG38	LAC 51:XII.377.A.3 - Records - Actions to Correct Violations; 40 CFR 141.403 and LAC 51:XII.377.A.3 - Records of actions taken by the system to correct violations of primary drinking water regulations shall be kept for a period not less than 3 years after the last action taken with respect to the particular violation involved. 40CFR 141.33(b).;88	SIG	SIG
MG39	LAC 51:XII.377.A.4 - Records - Written Reports/Sanitary Surveys; 40 CFR 141.403 and LAC 51:XII.377.A.4 - Copies of any written reports, summaries or communications relating to sanitary surveys of the system conducted by the system itself, by a private consultant, or by any local, State, or Federal agency, shall be kept for a period not less than 10 years after completion of the sanitary survey involved. 40CFR 141.33(c).;89	SIG	SIG
MG40	LAC 51:XII.377.A.5 - Records - Variances or Exemptions; 40 CFR 141.403 and LAC 51:XII.377.A.5 - Records concerning a variance or exemption granted to the system shall be kept for a period ending not less than 5 years following the expiration of such variance or exemption. 40CFR 141.33(d).;90	SIG	SIG
AP11	LAC 51:XII.1503.A - Approved Lab Requirement; 40 CFR 141.403 and LAC 51:XII.1503.A - Public water systems which provide treatment (other than chlorination) to the water shall provide an approved chemical laboratory/drinking water on-site or make contractual arrangements with an approved chemical laboratory/drinking water off-site to analyze and report results for certain physical and chemical analytes which are not required to be analyzed in a certified chemical laboratory/drinking water.;1	SIG	SIG
AP12	LAC 51:XII.1503.A.1.a-l - Samples for Compliance; 40 CFR 141.403 and LAC 51:XII.1503.A.1.a-l - All samples collected for compliance determination shall be either analyzed in a certified chemical laboratory/drinking water or in an approved chemical/laboratory drinking water. Samples collected for compliance determination which are allowed to be analyzed in an approved chemical laboratory/drinking water include the following: a. daily chlorite levels (at point of entry to the distribution system when using chlorine dioxide). b. daily fluoride levels. c. daily corrosion inhibitor concentration (orthophosphate and silica). d. pH. e. calcium. f. conductivity. g. temperature. h. alkalinity. i. turbidity. j. jar test for ACC #6 (as per §1311.B of this Part). k. jar tests for determining optimum coagulant dose (including Step 2 TOC removal per §1309 of this Part). and l. other drinking water analytes which are not required to be analyzed in a certified chemical laboratory/drinking water under other requirements of this Part or USEPA requirements.;2	SIG	SIG
AP13	LAC 51:XII.1503.B - Analyte Accuracy for Off-Site Approved Chemical Lab; 40 CFR 141.403 and LAC 51:XII.1503.B - In order to ensure an accurate and true representation of the level of an analyte associated with drinking water, the requirements of Subsection A of this Section shall not be construed to allow an approved chemical laboratory/drinking water off-site to perform a physical or chemical determination of an analyte when such analyte cannot be satisfactorily fixed, preserved, or transported (e.g., disinfectant residual levels, etc.).;3	SIG	SIG
AP14	LAC 51:XII.1503.C - Use Approved Chemical Lab Methodology; 40 CFR 141.403 and LAC 51:XII.1503.C - An approved chemical laboratory/drinking water shall perform all analyses using the laboratory methodology specifically required to be used under the provisions of this Part for such analyte.;4	SIG	SIG
AP15	LAC 51:XII.1505.A - Staffing; 40 CFR 141.403 and LAC 51:XII.1505.A - There shall be sufficient staff to perform the tests required.;5	SIG	SIG

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Category: 07-System Management

Code	Description	Severity	New Severity
AP16	LAC 51:XII.1505.B - Equipment; 40 CFR 141.403 and LAC 51:XII.1505.B - There shall be sufficient supplies, equipment, and space to perform the required volume of work with optimal accuracy, precision, timeliness, and safety.;6	SIG	SIG
AP17	LAC 51:XII.1505.C - Quality;40 CFR 141.403 and LAC 51:XII.1505.C - An approved chemical laboratory/drinking water shall ensure that satisfactory provisions are maintained for an instrumentation preventative maintenance program, an acceptable quality control program, and an approved proficiency testing program covering all of the various types of analyses performed.;7	SIG	SIG
AP18	LAC 51:XII.1505.D - Records; 40 CFR 141.403 and LAC 51:XII.1505.D - An approved chemical laboratory/drinking water shall ensure that records and reports are satisfactorily maintained and retrievable. Copies of records and reports for any off-site approved chemical laboratory/drinking water shall be filed in a folder identifying the public water system by name as well as is public water system identification number (PWS ID #).;8	SIG	SIG
AP19	LAC 51:XII.301.C - Laboratory Certification; 40 CFR 141.403 and LAC 51:XII.301.C - A laboratory certification program has been established to approve commercially and publicly owned laboratories to perform chemistry compliance monitoring for any chemistry category for which certification is offered must adhere to the rules and regulations governing laboratory certifications as contained in the Department of Health and Hospitals' Laboratory Certification Manual dated September 1989. An annual certification fee will be assessed laboratories seeking certification from the Department of Health and Hospitals.;9	SIG	SIG
DS37	LAC 51:XII.351.A - Disinfect When Deemed Necessary; 40 CFR 141.403 and LAC 51:XII.351.A - Pipes, pumps, and other parts of water supply systems shall be disinfected when deemed necessary by the state health officer.;57	SIG	SIG
DS38	LAC 51:XII.353.A - Disinfect Before Putting into Service; 40 CFR 141.403 and LAC 51:XII.353.A - Pumps, pipes, wells, tanks and other parts of new systems shall be thoroughly disinfected by the use of chlorine or chlorine compounds before being placed in use. The rate of application of chlorine shall be in such proportion to the rate of water entering the pipe or other appurtenances that the chlorine dose applied to the water shall be at least 50 mg/l. Chlorinated water shall be retained long enough to destroy non-spore-forming bacteria. The period shall be at least three hours and preferably longer, as may be directed. After the chlorine treated water has been retained for the required time, the chlorine residual at pipe extremities and at other representative points shall be at least 5 mg/l. If the residual is less than 5 mg/l, the disinfection procedure shall be repeated until a 5 mg/l residual is obtained, as required above.;58	SIG	SIG
DS39	LAC 51:XII.353.B - Disinfect Large Storage Tanks; 40 CFR 141.403 and LAC 51:XII.353.B - Large storage tanks may be disinfected by washing down the interior of the tank with a chlorine solution having at least 200 mg/l available chlorine and then washing the interior of the tank with potable water and wasting the wash water.;59	SIG	SIG
DS40	LAC 51:XII.373.A - Potable Hoses for Filling Water Containers; 40 CFR 141.403 and LAC 51:XII.373.A - Portable hoses used for filling water containers shall be provided with a metal disk at the nozzle to prevent contact of nozzle with ground or floors. When not in use, the portable hoses shall be protected from dirt and contamination by storage in a tightly enclosed cabinet and shall have a cap to cover the nozzle.;60	SIG	SIG
MG11	LAC 51:XII.103.A - Potable Water Supply Shall Comply with Code; 40 CFR 141.403 and LAC 51:XII.103.A - Every potable water supply which is hereafter constructed, or reconstructed, or every existing water supply which the state health officer determines is unsafe, shall be made to comply with the requirements of the Code.;61	SIG	SIG

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Code	Description	Severity	New Severity
MG12	LAC 51:XII.105.A - Permit Required for Construction/Modification; 40 CFR 141.403 and LAC 51:XII.105.A - No public water supply shall be hereafter constructed, operated or modified to the extent that the capacity, hydraulic conditions, functioning of treatment processes, or the quality of finished water is affected, without, and except in accordance with, a permit from the state health officer.;62	SIG	SIG
MG13	LAC 51:XII.105.B - Construction in Accordance with Approved Plans; 40 CFR 141.403 and LAC 51:XII.105.B - No public water supply shall be constructed or modified to the extent mentioned above except in accordance with the plans and specifications for the installation which have been approved, in advance, as a part of a permit issued by the state health officer prior to the start of construction or modification.;63	SIG	SIG
MG14	LAC 51:XII.105.C - Responsibility for Plans and Specifications; 40 CFR 141.403 and LAC 51:XII.105.C - Detailed plans and specifications for the installation for which a permit is requested shall be submitted by the person having responsible charge of a municipally owned public water supply or by the owner of a privately owned public water supply.;64	SIG	SIG
MG15	LAC 51:XII.105.D - Permit Review Standards; 40 CFR 141.403 and LAC 51:XII.105.D - The review and approval of plans and specifications submitted for issuance of a permit, will be made in accordance with the "Ten-State Standards" and the Louisiana Water Well Rules, Regulations, and Standards, plus any additional requirements of the state health officer as set forth in this Part.;65	SIG	REC
MG16	LAC 51:XII.307.A - Responsibility of Owner; 40 CFR 141.403 and LAC 51:XII.307.A - It shall be the duty of the mayor, or the person having responsible charge of a municipally owned water supply, or the legal or natural person owning a public water supply, to take all measures and precautions which are necessary to secure and ensure compliance with this Part of the Code, and such persons shall be held primarily responsible for the execution and compliance with regulations of this Code. A printed copy of this Part of the code shall be kept permanently posted in the office used by the authority owning or having charge of a public water supply.;66	SIG	SIG
MG17	LAC 51:XII.313.A - Public Notification for Violations; 40 CFR 141.403 and LAC 51:XII.313.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 supplier of water shall notify persons served by the system of the failure in a manner prescribed by the National Primary Drinking Water Regulations, the Louisiana Total Coliform Rule, or the Interim Enhanced Surface Water Treatment Rule, as applicable.;67	SIG	SIG
MG18	LAC 51:XII.321.A - Notification of Changes in Water Supply/Quality; 40 CFR 141.403 and LAC 51:XII.321.A - No person owning, or having by law the management control of any public water supply, shall take or cause to be taken for use for potable purposes, water from any auxiliary source other than a source of sources of water approved by the state health officer, or shall make any change whatsoever which may affect the sanitary quality of such water supply, without first having notified the state health officer.;68	SIG	SIG
MG19	LAC 51:XII.347.A - Connections to Public Water Supply; 40 CFR 141.403 and LAC 51:XII.347.A - All inhabited premises and buildings located within 300 feet of an approved public water supply shall be connected with such supply, provided that the property owner is legally entitled to make such a connection. The state health officer may grant permission to use water from some other source.;69	SIG	REC
MG20	LAC 51:XII.369.A - Owner of Premise Provide Potable Water; 40 CFR 141.403 and LAC 51:XII.369.A - It shall be the duty of owner or manager of any premises occupied as a residence, hotel, lodging house, tenement house, office building, shop, factory, or waiting room or depot of a railroad or other common carrier to provide a safe supply of potable water for human consumption and for sanitary purposes.;70	SIG	REC

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Code	Description	Severity	New Severity
MG21	LAC 51:XII.369.B - Person in Charge of Premise Provide Potable Water; 40 CFR 141.403 and LAC 51:XII.369.B - In all cases where the owner or owners of the property or premises referred to in this Code shall not reside in the place where the property is situated, or when such property shall belong to an estate, succession or corporation, it shall be the duty of the agent, or representative of the owners thereof, or the persons who shall have charge of said property for the owners thereof, or who shall collect the rent of such premises, if the same is rented, to provide and furnish such premises with a safe and adequate potable water supply. In case such person shall fail or neglect to supply the same to such premises, within 15 days after due notice, he shall be in violation of the provisions of this Part.;71	SIG	REC
MG22	LAC 51:XII.369.C - Schools Shall be Provided with Potable Water Supply; 40 CFR 141.403 and LAC 51:XII.369.C - Each public, parochial and private school shall be provided with a potable water supply which is approved as to source, location, and distribution by the state health officer.;72	SIG	REC
MG23	LAC 51:XII.369.D - Employers Shall Provide Potable Water for Employees; 40 CFR 141.403 and LAC 51:XII.369.D - It shall be the duty of all employers to supply an adequate, safe, potable water supply for all employees.;73	SIG	REC
MG49	TSS 2.5 - Electrical Controls; 40 CFR 141.403 and TSS 2.5 - Main switch gear electrical controls shall be located above grade, in areas not subject to flooding. All electrical work shall conform to the requirements of the National Electric code or to relevant state and/or local codes.;	SIG	SIG
SO37	SRC WL - TSS 3.2.1.1 - GW - Source Capacity; 40 CFR 141.403 and TSS 3.2.1.1 - The total developed groundwater source capacity, unless otherwise specified by the reviewing authority, shall equal or exceed the design maximum day demand with the largest producing well out of service.;	SIG	MIN
MG50	LAC 51:XII.1123.C - Combined Filter Effluent Turbidity Monitoring; 40 CFR 141.403 and LAC 51:XII.1123.C - To determine compliance with the performance standards specified in 1115 of this Chapter, each supplier using surface water or GWUDISW shall conduct continuous turbidity monitoring of representative samples of the combined filter effluent prior to clearwell storage during all times that the system is in operation. Combined filter effluent turbidity measurements shall be recorded every 15 minutes.;	SIG	SIG
T386	TSS 5.1.1.c - Chemical Application - Facility Design - Spare Parts; TSS 5.1.1.c - Spare parts shall be available for all feeders to replace parts which are subject to wear and damage.;293	MIN	MIN
T389	TSS 5.1.13.a - Chemical Application - Handling - Lifting Equipment; 40 CFR 141.403 and TSS 5.1.13.a - Carts, elevators and other appropriate means shall be provided for lifting chemical containers to minimize excessive lifting by operators.;296	MIN	REC
T390	TSS 5.1.13.b - Chemical Application - Handling - Empty Containers; 40 CFR 141.403 and TSS 5.1.13.b - Provisions shall be made for disposing of empty bags, drums or barrels by an approved procedure which will minimize exposure to dusts.;297	MIN	REC
T391	TSS 5.1.13.c - Chemical Application - Handling - Dry Chemical Transfer; 40 CFR 141.403 and TSS 5.1.13.c - Provision must be made for the proper transfer of dry chemicals from shipping containers to storage bins or hoppers, in such a way as to minimize the quantity of dust which may enter the room in which the equipment is installed. Control should be provided by use of vacuum pneumatic equipment or closed conveyor systems, facilities for emptying shipping containers in special enclosures, and/or exhaust fans and dust filters which put the hoppers or bins under negative pressure.;298	MIN	REC

Public Water System Deficiency List

Category: 07-System Management

Code	Description	Severity	New Severity
T396	TSS 5.3.2 - Operator Safety - Respiratory Protection Equipment; 40 CFR 141.403 and TSS 5.3.2 - Respiratory protection equipment, meeting the requirements of the National Institute for Occupational Safety and Health (NIOSH) shall be available where chlorine gas is handled, and shall be stored at a convenient heated location, but not inside any room where chlorine is used or stored. The units shall use compressed air, have at least a 30 minute capacity, and be compatible with or exactly the same as units used by the fire department responsible for the plant.;303	MIN	MIN
T398	TSS 5.3.4 - Operator Safety - Protective Equipment; 40 CFR 141.403 and TSS 5.3.4 - At least one pair of rubber gloves, a dust respirator of a type certified by NIOSH for toxic dusts. An apron or other protective clothing and goggles or face mask shall be provided for each operator as required by the reviewing authority. A deluge shower and eyewashing device should be installed where strong acids and alkalis are used or stored.;305	MIN	REC
T382	TSS 4.7.5.a - Fluoridation - Dust Control - Transfer of Dry Fluoride; 40 CFR 141.403 and TSS 4.7.5.a - Provision must be made for the transfer of dry fluoride compounds from shipping containers to storage bins or hoppers in such a way as to minimize the quantity of fluoride dust which may enter the room in which the equipment is installed. The enclosure shall be provided with an exhaust fan and dust filter which place the hopper under a negative pressure. Air exhausted from fluoride handling equipment shall discharge through a dust filter to the outside atmosphere of the building.;290	MIN	MIN
T383	TSS 4.7.5.b - Fluoridation - Dust Control - Empty Bags; 40 CFR 141.403 and TSS 4.7.5.b - Provision shall be made for disposing of empty bags, drums or barrels in a manner which will minimize exposure to fluoride dusts. A floor drain should be provided to facilitate the hosing of floors.;291	MIN	REC
MG25	TSS 2.18 - Safety; 40 CFR 141.403 and TSS 2.18 - Consideration must be given to the safety of water plant personnel and visitors. The design must comply with all applicable safety codes and regulations that may include the Uniform Building Code, Uniform Fire Code, National Fire Protection Association Standards, and state and federal OSHA standards. Items to be considered include noise arresters, noise protection, confined space entry, protective equipment and clothing, gas masks, safety showers and eye washes, handrails and guards, warning signs, smoke detectors, toxic gas detectors and fire extinguishers.;75	MIN	REC
MG41	LAC 51:XII.377.A.6 - Records - Public Notices Issued; 40 CFR 141.403 and LAC 51:XII.377.A.6 - Copies of public notices issued pursuant to Subpart Q of this part and certifications made to the primacy agency pursuant to §141.31 must be kept for three years after issuance. 40CFR 141.33(e).;91	MIN	MIN

Public Water System Deficiency List

Category: 08-Operator Compliance

Code	Description	Severity	New Severity
OP11	LAC 48:V.21.7303.B - Operator Class Level and Availability; 40 CFR 141.403 and LAC 48:V.21.7303.B - The Operator of any public water system or any community sewerage system shall hold current and valid professional certification(s) of the required category(s) at or above the level required for the total system and individual facility. Additionally, an operator shall demonstrate that, when not actually on site at the facility, he is capable of responding to that location within one hour of being notified that his presence is needed.;107	SIG	SIG
OP12	LAC 51:XII.309.A - Operator Duly Certified; 40 CFR 141.403 and LAC 51:XII.309.A - All public water supplies shall be under the supervision and control of a duly certified operator as per requirements of the State Operator Certification Act, Act 538 of 1972, as amended.;108	SIG	SIG

Public Water System Deficiency List

Category: 11-Other

Code	Description	Severity	New Severity
SE11	LAC 51:XII.315.A - Fencing; 40 CFR 141.403 and LAC 51:XII.315.A - All public water supply wells, treatment units, tanks, etc., shall be located inside a fenced area that is capable of being locked. and areas shall be locked when unattended. The fence shall be resistant to climbing and at least 6 feet high.;143	SIG	SIG
CC16	TSS 5.1.6.c - Chemical Application - Cross-Connection Control - Drains; 40 CFR 141.403 and TSS 5.1.6.c - Cross-connection control must be provided to assure that no direct connection exists between any sewer and a drain or overflow from the feeder, solution chamber or tank by providing that all drains terminate at least six inches or two pipe diameters, whichever is greater, above the overflow rim of a receiving sump, conduit or waste receptacle.;30	SIG	SIG