Chapter 62-555

**Permitting, Construction, Operation, and Maintenance of Public Water Systems**

# 62-555.310 Source and Siting Requirements for Public Water Systems

# 62-555.314 Location of Public Water System Mains

# 62-555.320 Design and Construction of Public Water Systems

# 62-555.350 Operation and Maintenance of Public Water Systems

# 62-555.520 Applying for Public Water System Construction Permits

## 62-555.310 Source and Siting Requirements for Public Water Systems.

(1) No Change.

(2) Advanced treated water from a permitted ATWF may be used as a water source by a PWS for the production of drinking water provided the requirements of Rule 62-550.305, F.A.C., are met.

(3)~~(2)~~ No change.

*Rulemaking Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(1) FS. History–New 11-19-87, Formerly 17-22.610, Amended 1-18-89, Formerly 17-555.310, Amended 8-28-03, \_\_\_\_\_\_\_\_\_\_.*

## 62-555.314 Location of Public Water System Mains.

For the purpose of this section, the phrase “water mains” shall mean mains, including treatment plant process piping, conveying either raw, partially treated, advanced treated water, or finished drinking water; fire hydrant leads; and service lines that are under the control of a public water system and that have an inside diameter of three inches or greater.

(1) Horizontal Separation Between Underground Water Mains and Sanitary or Storm Sewers, Wastewater or Stormwater Force Mains, Reclaimed Water Pipelines, and Onsite Sewage Treatment and Disposal Systems.

(a) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed storm sewer, stormwater force main, or pipeline conveying reclaimed water regulated under Chapter 62-565, F.A.C., or Part III of Chapter 62-610, F.A.C.

(b) No change.

(c) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least six feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Chapter 62-565, F.A.C., or Part III of Chapter 62-610, F.A.C. The minimum horizontal separation distance between water mains and gravity-type sanitary sewers shall be reduced to three feet where the bottom of the water main is laid at least six inches above the top of the sewer.

(d) No change.

(2) Vertical Separation Between Underground Water Mains and Sanitary or Storm Sewers, Wastewater or Stormwater Force Mains, and Reclaimed Water Pipelines.

(a) through (b) No change.

(c) At the utility crossings described in paragraphs (a) and (b), above, one full length of water main pipe shall be centered above or below the other pipeline so the water main joints will be as far as possible from the other pipeline. Alternatively, at such crossings, the pipes shall be arranged so that all water main joints are at least three feet from all joints in vacuum-type sanitary sewers, storm sewers, stormwater force mains, or pipelines conveying reclaimed water regulated under Chapter 62-565, F.A.C.,or Part III of Chapter 62-610, F.A.C., and at least six feet from all joints in gravity- or pressure-type sanitary sewers, wastewater force mains, or pipelines conveying reclaimed water not regulated under Chapter 62-565, F.A.C.,or Part III of Chapter 62-610, F.A.C.

(3) No change.

(4) Separation Between Fire Hydrant Drains and Sanitary or Storm Sewers, Wastewater or Stormwater Force Mains, Reclaimed Water Pipelines, and Onsite Sewage Treatment and Disposal Systems. New or relocated fire hydrants with underground drains shall be located so that the drains are at least three feet from any existing or proposed storm sewer, stormwater force main, or pipeline conveying reclaimed water regulated under Chapter 62-565, F.A.C., or Part III of Chapter 62-610, F.A.C.; at least three feet, and preferably ten feet, from any existing or proposed vacuum-type sanitary sewer; at least six feet, and preferably ten feet, from any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Chapter 62-565, F.A.C., or Part III of Chapter 62-610, F.A.C.; and at least ten feet from any existing or proposed “onsite sewage treatment and disposal system” as defined in Section 381.0065(2), F.S., and Rule 64E-6.002, F.A.C.

(5) No change.

*Rulemaking Authority 403.861(9) FS. Law Implemented 403.853(3), 403.861(12) FS. History–New 1-1-93, Formerly 17-555.314, Amended 8-28-03, \_\_\_\_\_\_\_\_\_\_.*

## 62-555.320 Design and Construction of Public Water Systems.

Public water systems shall be designed and constructed to provide sufficient drinking water of a quality that will meet all applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter. This section addresses the design and construction of all public water system components other than wells (but including well pumping equipment and appurtenances). Public water system wells are addressed in Chapters 62-524 and 62-532, and Rule 62-555.315, F.A.C.

(1) through (2) No change.

(3) Direct or Indirect Drinking Water Additives.

(a) No change.

(b) Newly installed or constructed public water system (PWS) components that come into contact with advanced treated water, drinking water or drinking water treatment chemicals shall conform to the applicable standards, regulations, or requirements referenced in subparagraphs 1. through 3., below. Fire hydrants are not covered by this paragraph; and mechanical devices that were previously installed in a PWS and then are removed, repaired or refurbished, and reinstalled in the same PWS are not covered by this paragraph. In addition, this paragraph does not apply to PWS components that either come into contact with drinking water prior to its treatment by reverse osmosis or come into contact with drinking water treatment chemicals and that are installed or constructed under a construction permit for which the Department received a complete application before August 28, 2003.

1. Except for ion-exchange resins, precast or cast-in-place concrete structures, and cement mortar, which are addressed in subparagraphs 2. and 3., below, newly installed or constructed PWS components that come into contact with advanced treated water, drinking water or drinking water treatment chemicals shall conform to one of the following:

a. through d. No change.

2. Newly installed ion-exchange resins that come into contact with advanced treated water or drinking water shall be part of an ion-exchange water softener that conforms to NSF International Standard 44 as adopted in Rule 62-555.335, F.A.C., or shall conform to one of the following:

a. through b. No change.

3. Any newly installed or constructed precast or cast-in-place concrete structure or newly installed cement mortar that is not coated by a barrier material meeting the requirements of subparagraph 1., above, and that comes into contact with advanced treated water, drinking water or drinking water treatment chemicals shall meet the following requirements:

a. through c. No change.

(c) No change.

(d) The Department shall allow exceptions to the requirements in paragraph (b), above, if suppliers of water or construction permit applicants provide the following:

1. No change.

2. Assurance that the components being provided will not impart into advanced treated water, drinking water or drinkingwater treatment chemicals any contaminant in an amount that could cause adverse human health effects.

(4) Flood Protection. Community water systems (CWSs) shall be designed and constructed so that structures, and electrical or mechanical equipment, used to treat, pump, or store advanced treated water or drinking water, apply drinking water treatment chemicals, or handle drinking water treatment residuals are protected from physical damage by the 100-year flood and, in coastal areas subject to flooding by wave action, from physical damage by the 100-year wave action. Additionally, CWSs shall be designed and constructed so that the aforementioned structures and equipment remain fully operational and accessible during the 25-year flood and, in coastal areas subject to flooding by wave action, the 25-year wave action; a lesser flood or wave action may be used if suppliers of water, or construction permit applicants provide justification for using a lesser flood or wave action, but in no case shall less than the ten-year flood or wave action be used.

(5) Security. Drinking water treatment or pumping facilities shall be enclosed by fences with lockable access gates, housed in lockable buildings or enclosures, or otherwise protected to prevent tampering, vandalism, and sabotage. Advanced treated water and f~~F~~inished-drinking-water storage facilities shall be enclosed by fences with lockable access gates, shall have lockable access openings and lockable cages or enclosures obstructing access to ladders, or shall be otherwise protected to prevent tampering, vandalism, and sabotage.

(6) through (9) No change.

(10) Color Coding of Piping. ~~at~~

(a) Drinking Water Treatment Plants. All new or altered, aboveground piping at drinking water treatment plants shall be color coded and labeled as recommended in Section 2.14 of *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C. In addition, all underground water main pipe that is installed at drinking water treatment plants on or after August 28, 2003, and that is conveying finished drinking water shall be color coded as required under subparagraph 62-555.320(21)(b)3., F.A.C. This subsection does not apply to drinking water treatment plant piping installed or altered under a construction permit for which the Department received a complete application before August 28, 2003.

(b) Advanced Treated Water Received by a PWS. All valves and outlets shall be appropriately tagged or labeled (bearing the words in English and Spanish: “Do not drink” together with the equivalent standard international symbol) to warn the public and employees that the water is not intended for drinking. All piping, pipelines, valves, and outlets shall be color coded, or otherwise marked, to differentiate advanced treated water from domestic wastewater or other water. Underground piping, which is not manufactured of metal or concrete, shall be color coded for advanced treated water using blue as a dominant color, with purple banding around the pipe. The pipe and band colors shall be easily differentiated to ensure proper identification of the pipe. For pipes greater than 6 inches in diameter, bands shall be four inches wide, and spaced no more than 24 inches apart, measured center-to-center.  For pipes 6 inches in diameter or smaller, bands shall be two inches wide, and spaced no more than 18 inches apart, measured center-to-center.   Underground metal and concrete pipe shall be color coded or marked using blue and purple banding predominantly. If tape is used to mark the pipe, the tape shall be permanently affixed to the pipe. Visible, above-ground portions of the advanced treated water system shall be clearly color coded or marked. New systems and expansions of existing systems shall comply with this color-coding standard. It is recommended, but shall not be required, that distribution and application facilities located on private properties, including residential properties, be color coded using blue and purple banding.

(11) No change.

(12) Disinfection of Drinking Water. All suppliers of water shall provide continuous disinfection of the drinking water they distribute. The necessary equipment and tanks shall be designed to comply with the applicable requirements in paragraphs (a) through (d), below, and subsections 62-555.350(5) and (6), F.A.C. Applicants for a permit to construct or alter disinfection facilities at a drinking water treatment plant where the requirements in paragraph (a) or (b), below, apply shall establish in the preliminary design report or drawings, specifications, and design data accompanying their permit application the following: the design level of *Cryptosporidium, Giardia lamblia,* or virus inactivation to be achieved by disinfection; if chemical disinfection is being used to achieve *Giardia lamblia* or virus inactivation, the design minimum residual disinfectant concentration (C) before, or at the first customer and the corresponding design minimum disinfectant contact time (T); and if ultraviolet disinfection is being used to achieve *Cryptosporidium, Giardia lamblia,* or virus inactivation, the design minimum ultraviolet dose.

(a) Suppliers of water using surface water, ~~or~~ ground water under the direct influence of surface water or advanced treated water shall comply with applicable requirements under Rules ~~Rule~~ 62-550.817 and 62-550.305, F.A.C.

(b) through (d) No change.

(13) Chlorination Facilities for Disinfection of Drinking Water.

(a) No change.

(b) Hypochlorination Facilities.

1. through 3. No change.

4. Hypochlorite shall be fed into drinking water, advanced treated water, or drinking water blended with advanced treated water, proportional to flow. Where the flow rate is reasonably constant, this may be accomplished by electrically interconnecting hypochlorination equipment with well or service pumps or by otherwise designing hypochlorination equipment to operate only when well or service pumps operate. Automatic flow proportioning control of hypochlorinators shall be provided where the flow rate fluctuates significantly. Furthermore, automatic residual control of hypochlorinators shall be provided where the chlorine demand fluctuates significantly, and automatic compound-loop control of hypochlorinators shall be provided where both the flow and the chlorine demand fluctuate significantly.

5. through 6. No change.

7. For hypochlorination facilities constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003:

a. No change.

b. The hypochlorination facilities shall be otherwise designed to avoid feeding sediment into the drinking water, advanced treated water, or drinking water blended with advanced treated water.

8. through 9. No change.

10. Hypochlorite shall be rapidly and thoroughly mixed with all drinking water, advanced treated water, or drinking water blended with advanced treated water being treated.

11. through 13. No change.

(14) through (17) No change.

(18) Pump Suction Piping. All pump suction piping that is conveying raw, partially treated, advanced treated water or finished drinking water shall be protected against infiltration. Pump suction piping that is conveying raw, partially treated, advanced treated water or finished drinking water and that is constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, must be located aboveground or, if located underground, must be constantly under positive gauge pressure.

(19) through (20) No change.

(21) Drinking Water Piping and Appurtenances.

(a) All new or altered mains, including treatment plant process piping, and appurtenances conveying raw, ~~or~~ partially treated drinking water or advanced treated water, shall be designed and constructed in accordance with Sections 8.0, 8.4, 8.5, and 8.7 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C., except that:

1. through 3. No change.

(b) through (c) No change.

*Rulemaking Authority 403.861(9) FS. Law Implemented 403.861(7) FS. History–New 11-19-87, Formerly 17-22.620, Amended 1-18-89, 5-7-90, 1-1-93, 3-8-94, Formerly 17-555.320, Amended 8-28-03, \_\_\_\_\_\_\_\_\_\_.*

## 62-555.350 Operation and Maintenance of Public Water Systems.

(1) through (11) No change

(12) Suppliers of water shall keep and submit operation and maintenance logs, reports, and records as described below.

(a) No change.

(b) For all public water systems except transient non-community water systems using only ground water and serving only businesses other than public food service establishments, suppliers of water shall submit monthly operation reports to the appropriate Department of Environmental Protection District Office or Approved County Health Department within ten days after each month of operation per paragraph 62-550.730(1)(d), F.A.C., and shall do so using the following forms as applicable: Form 62-555.900(2), Monthly Operation Report for Subpart H Systems as incorporated into paragraph 62-550.817(11)(a), F.A.C.; Form 62-555.900(3), Monthly Operation Report for PWSs Treating Raw Ground Water or Purchased Finished Water, hereby adopted and incorporated by reference, effective August 28, 2003; Form 62-555.900(4), Monthly Operation Report for Consecutive Systems that Do Not Treat Water, hereby adopted and incorporated by reference, effective August 28, 2003; Form 62-555.900(6), Monthly Operation Report for Consecutive Systems that Receive Purchased Finished Water from a Subpart H System as incorporated into paragraph 62-550.817(11)(b), F.A.C.; Form 62-555.900(11), Monthly Operation Report for Summation of Finished-Water Production by CWSs that Have Multiple Treatment Plants, hereby adopted and incorporated by reference, effective August 28, 2003; Form 62-555.350(12)(b), Supplemental Monthly Operation Report for PWS Receiving Advanced Treated Water, hereby adopted and incorporated by reference, effective [date] (http://www.flrules.org/Gateway/reference.asp?No=XXXX). Copies of these forms are available from the Department of Environmental Protection Drinking Water Section, M.S. 3520, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Suppliers of water shall keep copies of monthly operation reports, together with any additional operation records required by the monthly operation reports, for at least ten years in accordance with subsection 62-550.720(5), F.A.C.

(c) No change.

(13) through (15) No change.

*Rulemaking Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History–New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03, \_\_\_\_\_\_\_\_\_\_.*

## 62-555.520 Applying for Public Water System Construction Permits.

No change.

*Rulemaking Authority 403.087(2), 403.814(1), 403.861(2), (6), (9) FS. Law Implemented 367.031, 403.087(6)(a), 403.0877, 403.815, 403.861(2), (6), (7), 403.8615, 471.003 FS. History–New 11-19-87, Formerly 17-22.720, Amended 1-18-89, Formerly 17-555.520, Amended 12-10-96, 9-22-99, 8-28-03.*