62-555.350, F.A.C.

This document reflects changes received by the FL Secretary of State through March 31, 2015

Florida Administrative Code Annotated > ***TITLE 62 DEPARTMENT OF ENVIRONMENTAL PROTECTION*** > ***DIVISION 62 DEPARTMENTAL*** > ***CHAPTER 62-555 PERMITTING, CONSTRUCTION, OPERATION, AND MAINTENANCE OF PUBLIC WATER SYSTEMS*** > ***PART III CONSTRUCTION, OPERATION, AND MAINTENANCE OF PUBLIC WATER SYSTEMS***

62-555.350 Operation and Maintenance of Public Water Systems.

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment - including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves - shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida. Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

(3) Suppliers of water shall ensure that drinking water treatment chemicals conform to the standards referenced in paragraph 62-555.320(3)(a), F.A.C., and shall have their lead/chief water treatment plant operators certify in writing on the monthly operation reports required under subsection (12) below that drinking water treatment chemicals conform to the standards referenced in paragraph 62-555.320(3)(a), F.A.C. Lead/chief water treatment plant operators may base their certifications upon evaluations conducted by the supplier of water or upon third-party or manufacturer certifications.

(4) No supplier of water shall operate any drinking water treatment plant at a capacity greater than the plant's permitted operating capacity except with the Department's prior approval, which shall be given when such operation will not cause a violation of a maximum contaminant level, a treatment technique requirement, or other operating requirements and is for no more than three months, or under circumstances that the supplier of water documents as highly unusual and nonrecurring. The permitted operating capacity of each plant shall be as specified in the latest Department of Environmental Protection (DEP) construction permit concerning source water or treatment facilities for the plant. In

cases where no permitted operating capacity has been specified in the latest DEP construction permit concerning source water or treatment facilities for a plant, the Department shall establish the permitted maximum-day operating capacity of the plant and, if the plant is designed to meet peak water demand or to supplement finished-water storage facilities in meeting peak water demand, the permitted peak operating capacity of the plant based upon information that is included in or with pertinent permit applications or that is provided by the supplier of water and based upon design requirements in Part III of this chapter, including design requirements in the engineering references listed in Rule 62-555.330, F.A.C. Each day that a supplier of water is required under Chapter 62-699, F.A.C., to have a licensed operator staff or visit a plant, the supplier of water shall measure and record in the logs and reports required under subsection (12) below the net quantity of finished drinking water, excluding any filter backwash water, produced by the plant.

(5) Suppliers of water who are using ground water not under the direct influence of surface water and who are required to provide treatment to reliably achieve at least four-log inactivation or removal of viruses in accordance with paragraph 62-555.320(12)(b), F.A.C., shall monitor, record, and maintain the effectiveness and reliability of disinfection treatment as described in paragraphs (a) through (c) below. The residual disinfectant, temperature, or pH measurements required under paragraph (a) or (b) may be performed by any authorized representative of the supplier of water; but field measurements of residual chlorine, temperature, and pH shall be performed following the appropriate procedures in the Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP-001/01, as incorporated into Rule 62-160.800, F.A.C., and all other measurements shall be performed using an appropriate method referenced in subsection 62-550.550(1), F.A.C., or in Standard Methods for the Examination of Water and Wastewater as adopted in Rule 62-555.335, F.A.C.

(a) For each day a supplier of water serving 3,300 or more persons serves water to the public from a drinking water treatment plant that includes chemical disinfection for virus inactivation, the supplier of water shall continuously monitor the residual disinfectant concentration (C) before or at the first customer and shall record in the logs and reports required under subsection (12) below the lowest C measured before or at the first customer during peak flow, the corresponding disinfectant contact time (T) at the C monitoring point during peak flow, and the resulting lowest CT provided before or at the first customer during peak flow. In addition, at least once for each day the supplier of water serves water to the public from the plant, the supplier of water shall measure and record the temperature of the water at the point where C is monitored; shall measure and record the pH of the water at the point where C is monitored if free chlorine is being used for virus inactivation; and with this temperature and pH information, shall determine and record the minimum CT required to comply with paragraph 62-555.320(12)(b), F.A.C. If there is a failure of equipment used to continuously monitor C, the supplier of water may temporarily monitor C by taking grab samples every four hours but may do so for no more than one week following the equipment failure. If at any time the "CT provided" falls below the minimum CT required, the supplier of water shall increase the disinfectant dose until the "CT provided" is at least equal to the minimum CT required and shall notify the Department in accordance with subsection (10) below.

(b) For each day a supplier of water serving less than 3,300 persons serves water to the public from a drinking water treatment plant that includes chemical disinfection for virus inactivation, the supplier of water shall monitor the residual disinfectant concentration (C) before or at the first customer by taking at least one grab sample during peak flow and shall record in the logs and reports required under subsection (12) below the lowest C measured before or at the first customer during peak flow, the corresponding disinfectant contact time (T) at the C monitoring point during peak flow, and the resulting CT provided before or at the first customer during peak flow. In addition, at least once for each day the supplier of water serves water to the public from the plant, the supplier of water shall

measure and record the temperature of the water at the point where C is monitored; shall measure and record the pH of the water at the point where C is monitored if free chlorine is being used for virus inactivation; and with this temperature and pH information, shall determine and record the minimum CT required to comply with paragraph 62-555.320(12)(b), F.A.C. If any measurement of the "CT provided" falls below the minimum CT required, the supplier of water shall increase the disinfectant dose and take follow-up grab samples at least every four hours until the "CT provided" is at least equal to the minimum CT required and shall notify the Department in accordance with subsection (10) below.

(c) For each day a supplier of water serves water to the public from a drinking water treatment plant that includes ultraviolet (UV) disinfection for virus inactivation, the supplier of water shall continuously monitor the operating UV dose and shall record in the logs and reports required under subsection (12) below the lowest operating UV dose measured. If at any time the operating UV dose falls below the minimum UV dose required to comply with paragraph 62-555.320(12)(b), F.A.C., the supplier of water shall clean the UV lamp sleeves or replace the UV lamps to restore the operating UV dose to a level at least equal to the required minimum UV dose and shall notify the Department in accordance with subsection (10) below.

(6) Suppliers of water shall maintain a minimum free chlorine residual of 0.2 milligram per liter, or a minimum combined chlorine residual of 0.6 milligram per liter or an equivalent chlorine dioxide residual, throughout their drinking water distribution system at all times. If at any time the residual disinfectant concentration in any portion of a distribution system falls below the required minimum level, the supplier of water shall increase the disinfectant dose as necessary and flush said portion of the distribution system until the residual disinfectant concentration is restored to the required minimum level. Suppliers of water shall monitor and record the residual disinfectant concentration in their distribution system as described in paragraphs (a) and (b) below. The residual disinfectant measurements required under paragraph (a) or (b) may be performed by any authorized representative of the supplier of water; but field measurements of chlorine residual shall be performed following the appropriate procedures in the Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP-001/01, as incorporated into Rule 62-160.800, F.A.C., and all other measurements shall be performed using an appropriate method referenced in subsection 62-550.550(1), F.A.C.

(a) Each supplier of water serving 3,300 or more persons shall take at least one grab sample each day the supplier serves water to the public or at least five days per week, whichever is less, at a point in the water supplier's distribution system reflecting maximum residence time after disinfectant addition, shall measure the residual disinfectant concentration, and shall record the residual disinfectant concentration in the logs and reports required under subsection (12) below.

(b) Each supplier of water serving less than 3,300 persons shall take at least one grab sample each day the supplier serves water to the public or at least two days per week, whichever is less, at a point in the water supplier's distribution system reflecting maximum residence time after disinfectant addition, shall measure the residual disinfectant concentration, and shall record the residual disinfectant concentration in the logs and reports required under subsection (12) below.

(7) Except when a water main breaks or treatment or pumping equipment fails and except under circumstances that the supplier of water documents to be highly unusual and nonrecurring, suppliers of water shall maintain a minimum gauge pressure of 20 pounds per square inch throughout their drinking water distribution system up to each customer's point of connection to the water supplier's distribution system.

(8) Suppliers of water shall employ licensed operation personnel in accordance with Chapters 62-602 and 62-699, F.A.C., 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 as defined in, and regulated under, Chapter 381, 500, or 509, F.S.

(9) No supplier of water shall alter or replace underground portions of, or abandon, any public water system well without first obtaining a permit from the appropriate water management district or delegated permitting authority if such a permit is required under Chapter 62-532, F.A.C. In addition, no supplier of water shall introduce a new source of water into any public water system; alter, or discontinue use of, any public water system components other than wells (but including well pumping equipment and appurtenances); or alter the type of chemicals being used to treat drinking water without first obtaining a construction permit or written approval from the Department if such a permit or such approval is required under subsection 62-555.520(1), F.A.C., or first submitting written notification to the Department if such notification is required under subsection 62-555.520(1), F.A.C.

(10) Suppliers of water shall notify the State Warning Point (SWP), the appropriate Department of Environmental Protection (DEP) District Office or Approved County Health Department (ACHD), and water customers in accordance with the following procedures in the event of the following circumstances.

(a) Suppliers of water shall telephone the SWP at 1(800)320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system.

(b) Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office or ACHD as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:

1. The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;

2. The failure of a public water system to comply with applicable disinfection requirements; or

3. The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C.

(c) Suppliers of water shall notify the appropriate DEP District Office or ACHD and affected water customers by no later than the previous business day before initiating any planned permanent or temporary conversion from free chlorine to chloramines or vice versa for disinfection. Notices to the appropriate DEP District Office or ACHD shall be delivered by telephoning, and speaking directly to a person at, the DEP District Office or ACHD, and notices to affected water

customers shall be delivered in writing or via telephone, newspaper, radio, or television. A single notice may be provided to cover both a planned temporary conversion from chloramines to free chlorine and the planned subsequent conversion back to chloramines. Notification is not required before unplanned temporary conversions from chloramines to free chlorine to protect public health during emergency operating conditions caused by circumstances such as source water contamination, water main breaks, or backflow incidents.

(d) Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television by no later than the previous business day before taking public water system

(PWS) components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality or interrupt water service to any service connection. Additionally, suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office or ACHD by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C.

(e) Suppliers of water shall describe in the monthly operation reports required under subsection (12) below all emergency or abnormal operating conditions and all maintenance or repair work that involves taking out of operation public water system components other than water service lines.

(11) Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C.

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

(a) All suppliers of water shall keep operation and maintenance logs at their drinking water treatment plants. For plants that are part of a transient non-community water system using only ground water and serving only businesses other than public food service establishments, the operation and maintenance logs shall contain a minimum of three months of data at all times and shall contain the date and type of all maintenance performed and the date and results of all sampling and analyses performed unless the sampling or analyses are documented on a laboratory sheet. For all other plants, the operation and maintenance logs shall contain the information listed in, and shall be maintained as described in, subsection 62-602.650(4), F.A.C.

(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 10 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. 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) All suppliers of water shall keep records documenting that their finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, have been cleaned and inspected during the past five years in accordance with subsection 62-555.350(2), F.A.C. In addition, all suppliers of water shall keep records documenting that their isolation valves are being exercised, and their water mains conveying finished drinking water are being flushed, in accordance with subsection 62-555.350(2), F.A.C.

(13) Suppliers of water shall provide an operation and maintenance manual for each of their drinking water treatment plants by no later than December 31, 2005, and shall update the manual thereafter as necessary to reflect plant alterations and additions. The manual shall contain operation and control procedures, and preventive maintenance and repair procedures, for all plant equipment and shall be made available for reference at the plant or at a convenient location near the plant. Bound and indexed equipment manufacturer manuals shall be considered sufficient to meet the requirements of this subsection.

(14) By December 31, 2005, suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall have, and thereafter maintain, an up-to-date map of their drinking water distribution system. Such a map shall show the location and size of water mains if known; the location of valves and fire hydrants; and the location of any pressure zone boundaries, pumping facilities, storage tanks, and interconnections with other public water systems.

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A communication chart as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Statutory Authority

Rulemaking Authority 403.861(9) FS.
Law Implemented 403.852(12), 403.853(6), 403.861(17) FS.

History

HISTORY
New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Annotations

Case Notes

ANNOTATIONS

Effective operation

Although respondent, a licensed operator, violated state regulations related to the operation, maintenance, and supervision of domestic wastewater treatment facilities (WWTFs) and potable water systems (PWSs); and the Department of Environmental Protection (Department) was authorized to suspend his drinking water license and to revoke his wastewater license, the circumstances suggested an alternative disciplinary action of imposing an administrative fine and a probation period to test the operator's claim that his new employment with a facilities management company would improve the performance of the record keeping and reporting duties imposed on him, as well as his ineffective on-site operation, supervision, and maintenance of the facility; including maintaining an O&M log pursuant to subsection 62-602.650(3), F.A.C.; monitoring the operation of the WWTFs and submitting monthly Discharge Monitoring Reports (DMRs) pursuant to subsection 62-601.300(1); and monitoring the operations of the PWS and timely submitting monthly operating reports (MORs) to the water supplier and to the Department under paragraph 62-555.350(12)(b). Department of Environmental Protection, Petitioner, v. Thomas B. Mahon, 2011 Fla. Div. Adm. Hear. LEXIS 411, December 30, 2011, Recommended Order.

Fuel expenses - hurricane preparedness

The public service commission agreed that to disallow the water utility's fuel expense would unnecessarily penalize its efforts to comply with subsection 62-555.350(2), F.A.C., which requires suppliers of water to maintain components in good condition, perform preventive maintenance on equipment, including auxiliary power sources. In re: Application for increase in water and wastewater rates in *Alachua, Brevard, DeSoto, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia, and Washington Counties by Aqua Utilities Florida, Inc., 2009 Fla. PUC LEXIS 415.*

Water main flushing

The public service commission found that the water utility corporation's explanation for increased flushing was justifiable based on subsection 62-555.350(2), F.A.C., as well as subsection ***62-555.350(6***), F.A.C. In re: Application for increase in water and wastewater rates in *Alachua, Brevard, DeSoto, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia, and Washington Counties by Aqua Utilities Florida, Inc., 2009 Fla. PUC LEXIS 415.*

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