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**PART I GENERAL**

**62-600.100 Applicability.**

(1) Standards and requirements in this chapter shall apply only to domestic wastewater treatment, reuse, and disposal facilities (including biosolids management facilities). Any reference to wastewater facility in this chapter means a domestic wastewater facility.

(2) The standards and requirements of Parts II and V of Chapter 62-600, and Rule 62-600.500, F.A.C., shall be applicable to septic systems and other onsite closed-tank wastewater treatment systems with subsurface disposal regulated by this chapter. The reliability requirements of paragraph 62-600.400(1)(b), F.A.C., shall not apply to such septic systems and other onsite closed-tank wastewater treatment systems.

(3) The discharge limitation of subsection 62-600.510(5), F.A.C., shall not be applicable to facilities permitted on or before January 1, 1982, that discharge into Class II waters or Class III waters which are subsequently reclassified as Class II waters.

*Rulemaking Authority 403.051, 403.061, 403.062, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 11-27-89, Amended 1-30-91, Formerly 17-600.100, Amended 12-24-96, 2-8-16.*

**62-600.120 Exemptions.**

(1) Onsite sewage treatment and disposal systems regulated by DOH are exempted from the requirements of this chapter. DOH regulates onsite sewage treatment and disposal systems in accordance with Section 381.0065, F.S.

(2) Additional relief from the criteria established by this chapter may be provided through an exemption, pursuant to Rule 62-4.243, F.A.C., or a variance, pursuant to Sections 403.201 and 120.542, F.S.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 11-27-89, Amended 1-30-91, Formerly 17-600.120, Amended 12-24-96, 2-8-16.*

### **62-600.200 Definitions.**

Terms used in this chapter shall have the meanings specified below.

(1) “Ammonia nitrogen (NH<sub>3</sub>-N)” means the quantity of elemental nitrogen present in water or wastewater as ammonia (NH<sub>3</sub>), expressed as elemental nitrogen, N, as determined using approved methods.

(2) “Annual average daily flow (AADF)” means the arithmetic mean of the 12 monthly average daily flows calculated during any consecutive 12-month period, expressed in units of mgd.

(3) “Aquifer” means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells, springs, or surface water.

(4) “Approved methods” means sampling and laboratory testing methods conducted in accordance with Rule 62-4.246, Part IV of this chapter; Chapter 62-160, and paragraph 62-620.100(3)(j), F.A.C., as appropriate.

(5) “Arithmetic mean” means the value computed by dividing the sum of a set of terms by the number of terms.

(6) “Average daily flow (ADF)” means the total volume of wastewater flowing into a wastewater facility during some defined period of time, divided by the number of days in that period of time, expressed in units of mgd.

(7) “Biosolids” means the solid, semisolid, or liquid residue generated during the treatment of domestic wastewater as defined in Chapter 62-640, F.A.C. Not included is the treated effluent or reclaimed water from a domestic wastewater treatment plant.

(8) “Carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>)” means the quantity of oxygen utilized in the carbonaceous biochemical oxidation of organic matter present in water or wastewater, reported as a five-day value determined using approved methods.

(9) “Chloride” means the negatively charged chloride ion (Cl<sup>-</sup>) in water or wastewater, as determined using approved methods.

(10) “Coastal recreation waters” means those waters defined in 40 C.F.R. 131.41(b).

(11) “Coastal waters” means all estuarine, gulf, or ocean waters which are not classified as open ocean waters.

(12) “Collection/transmission systems” means sewers, pipelines, conduits, pumping stations, force mains, and all other facilities used for collection and transmission of wastewater from individual service connections to facilities intended for the purpose of providing treatment prior to release to the environment.

(13) “Composite sample” means a single sample that is a combination of individual sub-samples of wastewater, effluent, or reclaimed water taken at selected intervals, usually based on time or flow volumes, to minimize the effect of the variability of the individual sub-samples.

(14) “Department” means the State of Florida Department of Environmental Protection.

(15) “DOH” means the State of Florida Department of Health.

(16) “Design capacity” means the average daily flow projected for the design year which serves as the basis for the sizing and design of the wastewater facilities. The design capacity is established by the permit applicant. The time frame associated with the design capacity (e.g., annual average daily flow, monthly average daily flow, three-month average daily flow) shall be specified by the permit applicant.

(17) “Developed areas” means areas in or adjacent to residential, commercial, or residentially or commercially-zoned areas.

(18) “Disinfection” means the selective destruction of pathogens in wastewater effluents, reclaimed water, and biosolids.

(19) “Disposal system” means injection wells, effluent outfalls, land application systems, and other facilities utilized for the release of effluents into the environment.

(20) “District office” means the regional district offices of the Department.

(21) “Domestic wastewater” means wastewater derived principally from dwellings, business buildings, institutions, and the like, commonly referred to as sanitary wastewater or sewage. Where industrial wastewater is combined with domestic wastewater for treatment, the determination of whether or not the wastewater treatment plant is designated as “domestic” shall be made by the Department considering any or all of the following: biosolids classification; whether wastewaters have been pretreated or contain

constituents within 50-150%, by concentration, of typical domestic wastewater; and whether the permittee, when not required to provide more stringent or otherwise specific levels of treatment, can provide assurance of facility compliance with domestic wastewater treatment standards contained in this chapter.

(22) "Effluent," unless specifically stated otherwise, means water that is not reused after flowing out of any plant or other works used for the purpose of treating, stabilizing, or holding wastes.

(23) "Effluent limitation" means the same as defined in Section 403.031(3), F.S.

(24) "Fecal coliforms" means members of the coliform group capable of producing gas from lactose at 44.5° C, as determined using approved methods.

(25) "Flow" shall mean the following:

(a) For wastewater facilities having a permitted capacity of 100,000 gallons per day or greater, flow values obtained from recording flow meters and totalizers, calibrated at least once every 12 months; and,

(b) For wastewater facilities having a permitted capacity of less than 100,000 gallons per day, flow values obtained by one of the following methods:

1. Elapsed time measurements on pumps where pumps are responsible for the flow and where the pumping rate is calibrated at least once every 12 months,

2. Consumptive water use measurements based upon written approval by the Department where elapsed time measurement on pumps cannot be made,

3. Flow meters and weirs, calibrated at least once every 12 months, or

4. Other means using established engineering techniques.

(26) "Geometric mean" means that nth root of the product of n numbers.

(27) "Grab sample" means a single sample of wastewater, effluent, or reclaimed water.

(28) "Ground water" means water beneath the surface of the ground within a zone of saturation, whether or not flowing through known and definite channels.

(29) "Holding pond" means a storage tank or artificial impoundment or pond constructed above, on, below, or partly below the ground surface that is designed and maintained to store a specific volume of fluid and minimize fluid losses other than those primarily occurring by evaporation; generally, holding ponds are not intended to provide a mechanism for pollutant reduction. When used in conjunction with rapid-rate land application systems or other systems described in Chapter 62-610, F.A.C., holding ponds can also provide a mechanism to accomplish nitrogen reduction.

(30) "Industrial wastewater" means process and non-process wastewater from manufacturing, commercial, mining, and silvicultural facilities or activities, including the runoff and leachate from areas that receive pollutants associated with industrial or commercial storage, handling or processing, and all other wastewater not otherwise defined as domestic wastewater. Industrial wastewater does not include demineralization concentrate as stated in Rule 62-610.865, F.A.C.

(31) "Land application" means the reuse of reclaimed water or the disposal of effluent on, above, or into the surface of the ground through spray irrigation, other irrigation techniques, rapid-rate systems, absorption fields, overland flow systems, or other methods.

(32) "Membrane filter (MF) method" means a method for the direct enumeration of specific microorganisms resulting from the passage of an appropriate volume of water or wastewater through a membrane filter that retains the microorganisms present in the sample, using approved methods.

(33) "Modification" means any alteration, expansion, upgrade, extension, replacement of, or addition to an existing wastewater facility or activity. "Modification" does not include, and no permit revision is required for structural changes to an existing wastewater facility or activity, site or plant, that do not change the quality, nature, or quantity of the discharge of wastes or that do not cause water pollution.

(34) "Monitoring well" means a strategically located well from which ground water levels are measured or samples are withdrawn for water quality analysis.

(35) "Monthly average daily flow" means the total volume of wastewater flowing into a wastewater facility during a calendar month, divided by the number of days in that month, expressed in units of mgd.

(36) "Most probable number (MPN) method" means a method for the detection and estimation of specific microorganisms in water or wastewater samples by the multiple fermentation tube technique, as determined using approved methods.

(37) "Nitrate (NO<sub>3</sub>)" means the nitrogen content present in water or wastewater attributable to the nitrate (NO<sub>3</sub>) ion, expressed

as elemental nitrogen, N, as determined using approved methods.

(38) "Nitrite (NO<sub>2</sub>)" means the nitrogen content present in water or wastewater attributable to the nitrite (NO<sub>2</sub>) ion and expressed as elemental nitrogen, N, as determined using approved methods.

(39) "Nutrients" shall mean the separately reported values of total nitrogen, total phosphorus, total ammonia, ammonia nitrogen, nitrate plus nitrite nitrogen, organic nitrogen, and ortho-phosphate.

(40) "Ocean outfall" means the outlet or structure through which effluent is finally discharged to the marine environment which includes the territorial sea, contiguous zone, and the ocean.

(41) "Onsite sewage treatment and disposal system" means an onsite sewage treatment and disposal system as defined in Section 381.0065, F.S.

(42) "Open ocean waters" means all surface waters extending seaward from the most seaward natural 90-foot (15-fathom) isobath. Contour lines may be determined from National Oceanic and Atmospheric Administration Charts.

(43) "Operator" means any person who is in onsite charge of the actual operation, supervision, and maintenance of a domestic wastewater treatment plant and includes the person in onsite charge of a shift or period of operation during any part of the day. Operator also means any person operating an electronic control system. Such persons shall be licensed in accordance with Chapter 62-602, F.A.C.

(44) "Organic nitrogen" means nitrogen chemically bound in organic molecules such as proteins, amines, and amino acids; total Kjeldahl nitrogen minus ammonia nitrogen.

(45) "Ortho-phosphate" means the inorganic phosphorus present as phosphate ions or a salt of the phosphate ion in water or wastewater as determined using approved methods.

(46) "Outfall" means the outlet, structure, or designated location through which effluent is discharged to surface water.

(47) "Pathogens" means disease-producing organisms.

(48) "Peak hourly flow (PHF)" means the average flow rate during the one-hour period of the day when wastewater flows are at a maximum, expressed in units of mgd.

(49) "Permitted capacity" means the treatment, reuse, or disposal capacity for which a facility is approved by Department permit expressed in units of mgd. The permit shall specify the time frame associated with the permitted capacity (e.g., annual average daily flow, monthly average daily flow, three-month average daily flow).

(50) "Permittee" means the owner, operator or other entity to which a permit for a wastewater facility or activity is issued by the Department. The term "permittee" shall be functionally synonymous with the terms "owner," "contractor," and "licensee," but shall not include licensed individuals, such as State certified operators, unless they are the persons to whom a facility permit is issued by the Department. The term shall extend to a permit "applicant" for purposes of this chapter.

(51) "pH" means the negative common logarithm of the hydrogen-ion activity in moles per liter, as determined using approved methods.

(52) "Pollution" means the same as defined in Section 403.031(7), F.S.

(53) "Preapplication treatment" means that level of treatment provided prior to application of reclaimed water or effluent to a land application system.

(54) "Reclaimed water," except as specifically provided in Chapter 62-610, F.A.C., means water that has received at least secondary treatment and basic disinfection and is reused after flowing out of a domestic wastewater treatment facility.

(55) "Reuse" means the deliberate application of reclaimed water, in compliance with Department and Water Management District rules, for a beneficial purpose. Criteria used to classify projects as "reuse" or "effluent disposal" are contained in Rule 62-610.810, F.A.C.

(56) "Secondary treatment" means wastewater treatment to a level that will achieve the effluent limitations specified in Rule 62-600.420, F.A.C.

(57) "Secretary" means the same as defined in Section 403.803(12), F.S.

(58) "Septic system" means a system that contains a standard subsurface, filled, or mound drainfield system; a septic tank; a pump tank; or a solids or effluent pump that is installed or proposed to be installed beyond the building sewer on land of the owner or on other land to which the owner has the legal right to install a system. The term includes any item placed within, or intended to be used as part of or in conjunction with, the system.

(59) "Surface water" means surface water as defined in Section 373.019(21), F.S.

(60) "Technology -based effluent limitation (TBEL)" means a minimum treatment requirement, established by the Department,

based on treatment technology. The minimum treatment requirements may be set at levels more stringent than that which is necessary to meet water quality standards of the receiving water body as set out specifically in other sections of this chapter.

(61) “Three-month average daily flow” means the arithmetic mean of the three monthly average daily flows calculated during any consecutive three-month period, expressed in units of mgd.

(62) “Total ammonia” means the sum of nitrogen content present as un-ionized ammonia (NH<sub>3</sub>) and the nitrogen content present as ammonium (NH<sub>4</sub><sup>+</sup>), expressed as elemental nitrogen, N, as determined using approved methods.

(63) “Total chlorine residual” means the chlorine remaining in water or wastewater at the end of a specific contact period as combined and free chlorine, measured analytically by approved methods as combined chlorine residual.

(64) “Total Kjeldahl nitrogen (TKN)” means the sum of ammonia nitrogen and organic nitrogen compounds in water or wastewater, expressed as elemental nitrogen, N, as determined using approved methods.

(65) “Total nitrogen (TN)” means the total content of the nitrogen species of organic nitrogen, ammonia, nitrate and nitrite present in water or wastewater expressed as elemental nitrogen, N, as determined using approved methods.

(66) “Total phosphorus (TP)” means the total phosphate content of water or wastewater including all of the orthophosphates and condensed phosphates, both soluble and insoluble, and organic and inorganic species and expressed as elemental phosphorus, P, as determined using approved methods.

(67) “Total suspended solids (TSS)” means solids that either float on the surface of, or are suspended in, water or wastewater; the quantity of material removed from a sample in a laboratory test referred to as nonfiltrable residue, as determined using approved methods.

(68) “Treatment” means any method, technique, or process which changes the physical, chemical, or biological character or composition of wastewater and thereby reduces its potential for polluting waters of the state.

(69) “Treatment plant” means the same as domestic wastewater treatment plant as defined in Section 403.866(2), F.S.

(70) “Type I facility” means a wastewater facility having a permitted capacity of 500,000 gallons per day or greater.

(71) “Type II facility” means a wastewater facility having a permitted capacity of 100,000 up to but not including 500,000 gallons per day.

(72) “Type III facility” means a wastewater facility having a permitted capacity of over 2,000 up to but not including 100,000 gallons per day.

(73) “Underground injection” means effluent disposal or reuse by well injection into underground geologic formations.

(74) “Wastes” means the same as defined in Section 403.031(12), F.S.

(75) “Wastewater” means the combination of liquid and water-carried pollutants from residences, commercial buildings, industrial plants, and institutions together with any ground water, surface runoff or leachate that may be present.

(76) “Wastewater facility” or “facility” means any facility which discharges wastes into waters of the State or which can reasonably be expected to be a source of water pollution and includes any or all of the following: the collection and transmission system, the wastewater treatment works, the reuse or disposal system, and the biosolids management facility.

(77) “Waters” means the same as defined in Section 403.031(13), F.S.

(78) “Water hammer” means a dynamic pressure caused by the sudden transformation of kinetic energy to pressure energy when a liquid flowing full in a pipeline is abruptly stopped.

(79) “Water quality -based effluent limitation (WQBEL)” means an effluent limitation, which may be more stringent than a technology -based effluent limitation, that has been determined necessary by the Department to ensure that water quality standards in a receiving body of water will not be violated.

(80) “Water quality standards” means standards composed of designated present and future most beneficial uses (classification of waters), the numerical and narrative criteria applied to the specific water uses or classification, the Florida anti-degradation policy, and the moderating provisions contained in Chapters 62-4 and 62-302, F.A.C., adopted pursuant to Chapter 403, F.S.

(81) “Zone of mixing” or “mixing zone” means a volume of surface water containing the point or area of discharge and within which an opportunity for the mixture of wastes with receiving surface waters has been afforded.

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### **62-600.300 General Technical Documents.**

(1) The technical standards and criteria contained in the following standard manuals and technical publications listed in

subsection 62-600.300(4), F.A.C., and those referenced throughout this chapter are hereby incorporated by reference and shall be applied, if applicable, in determining whether permits allowing construction or modification of domestic wastewater facilities shall be issued or denied.

(2) Deviations from the standards and criteria contained in the publications listed in subsection 62-600.300(4), F.A.C., shall be approved by the Department provided that:

(a) The preliminary design or engineering report provides reasonable assurance that the proposed design will provide collection, transmission, treatment, and reuse or disposal meeting the requirements of this chapter; and either:

(b) Conforming with these standards cannot be done except at unreasonably higher costs, or

(c) It is not technically feasible to conform to these standards because of site conditions or incompatibility with a proposed facility design employing new and innovative techniques which assure compliance with the remainder of this chapter.

(3) In cases where standards and criteria contained in the publications listed in subsection 62-600.300(4), F.A.C., conflict with other rules of the Department, the other rules shall apply.

(4) Standard Manuals and Publications.

(a) Water Pollution Control Federation, 1977. Manual of Practice No. 8. Wastewater Treatment Plant Design. W.P.C.F., 601 Wythe Street, Alexandria, Virginia 22314-1994, <http://www.wef.org>.

(b) Great Lakes/Upper Mississippi River Board of State Sanitary Engineers, 1978 edition. Recommended Standards for Sewage Works. Health Education Service, Inc., P.O. Box 7126, Albany, New York 12224. <http://www.healthresearch.org/store>.

(c) U.S. Environmental Protection Agency, 1987. Phosphorus Removal-Design Manual. EPA-625/1-87-001. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(d) U.S. Environmental Protection Agency, 1973. Carbon Absorption-Process Design Manual. EPA-625/1-71-002a. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(e) U.S. Environmental Protection Agency, 1975. Suspended Solids Removal-Process Design Manual. EPA-625/1-75-003a. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(f) U.S. Environmental Protection Agency, 1974. Upgrading Existing Wastewater Treatment Plants – Process Design Manual. EPA-625/1-71-004a. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(g) U.S. Environmental Protection Agency, 1985. Odor and Corrosion Control in Sanitary Sewerage Systems and Treatment Plants – Process Design Manual. EPA-625/1-85-018. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index>.

(h) U.S. Environmental Protection Agency, 1975. Nitrogen Control – Process Design Manual. EPA-625/1-75-007. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(i) U.S. Environmental Protection Agency, 1981. Land Treatment of Municipal Wastewater – Process Design Manual. EPA-625/1-81-013. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(j) U.S. Environmental Protection Agency, 1977. Wastewater Treatment Facilities for Sewered Small Communities – Process Design Manual. EPA-625/1-77-009. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(k) U.S. Environmental Protection Agency, 1979. Sludge Treatment and Disposal – Process Design Manual. EPA-625/1-79-011. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(l) U.S. Environmental Protection Agency, 1974. Design Criteria for Mechanical, Electric, and Fluid System and Component Reliability – MCD-05. EPA-430/99-74-001. Environmental Quality Instructional Resources Center, The Ohio State University, 1200 Chambers Road, Room 310, Columbus, Ohio 43212, <http://www.epa.gov/nscep/index.html>.

(m) U.S. Environmental Protection Agency, 1974. Protection of Shellfish Waters – MCD-06. EPA-430/9-74-010. Environmental Quality Instructional Resources Center, The Ohio State University, 1200 Chambers Road, Room 310, Columbus,

Ohio 43212, <http://www.epa.gov/nscep/index.html>.

(n) U.S. Environmental Protection Agency, 1977. Procedures Manual for Groundwater Monitoring at Solid Waste Disposal Facilities. EPA-530/SW-611. National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, <http://www.epa.gov/nscep/index.html>.

(o) U.S. Environmental Protection Agency, 1980. Design Manual – Onsite Wastewater Treatment and Disposal Systems. EPA-625/1-80-012. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(p) U.S. Department of Agriculture, Soil Conservation Service, 1973. Drainage of Agricultural Land. Water Information Center, Inc., 125 East Bethpage Road, Plainview, New York 11803, <http://www.nrcs.usda.gov/>.

(q) Florida Department of Transportation, 1985. Florida Land Use, Cover and Forms Classification System. Procedure No. 550-010-001-A. Florida Department of Transportation, Maps and Publications Sales, Mail Station 12, 605 Suwannee Street, Tallahassee, Florida 32399-0450, <http://www.dot.state.fl.us/surveyingandmapping/>.

(r) U.S. Environmental Protection Agency, 1976. Direct Environmental Factors at Municipal Wastewater Works – MCD-20. EPA-430/9-76-003. Environmental Quality Instructional Resources Center, The Ohio State University, 1200 Chambers Road, Room 310, Columbus, Ohio 43212, <http://www.epa.gov/nscep/index.html>.

(s) U.S. Environmental Protection Agency, 1984. Land Treatment of Municipal Wastewater – Supplement on Rapid Infiltration and Overland Flow – Process Design Manual. EPA-625/1-81-013a. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(t) U.S. Environmental Protection Agency, 1986. Municipal Wastewater Disinfection – Design Manual. EPA-625/1-86-021. EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, <http://www.epa.gov/nscep/index.html>.

(5) Members of the public may request and obtain copies of the publications listed in subsection 62-600.300(4), F.A.C., above by contacting the appropriate publisher at the address indicated. Copies of the above publications are on file and available for review in the Department's Tallahassee offices and in the Department's district and branch offices where they may be reviewed during normal business hours.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088, 403.913 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088, 403.913, 403.918 FS. History—New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.300, Amended 12-24-96, 2-8-16.*

## **PART II TREATMENT FACILITIES**

### **62-600.400 Design Requirements.**

#### **(1) Facilities.**

(a) New wastewater facilities and modifications of existing facilities shall be designed in accordance with sound engineering practice. General technical documents are provided by references listed under Rule 62-600.300, F.A.C.

(b) For new facilities and modifications of existing facilities, it shall be the design objective to select treatment processes and equipment that will efficiently and reliably meet required reclaimed water or effluent limitations. Unless otherwise stated, new or modified wastewater treatment and biosolids treatment, handling, and dewatering facilities shall provide Class III reliability as described in paragraph 62-600.300(4)(1), F.A.C. The minimum Class III reliability requirement shall only apply to the new or modified portions of the facilities. Facility reliability shall be addressed in the preliminary design or engineering report as required by subsection 62-620.410(3), F.A.C. The Department shall approve other methods of providing Class I, II, or III reliability if the permittee provides reasonable assurances in the preliminary design report that the level of reliability provided is equivalent to the class of reliability required (i.e., Class I, II, or III, whichever applies).

(c) Innovative or alternative treatment processes for facilities shall be reviewed on their merit. When sufficient supporting information has been presented to the Department, installation may be allowed on an experimental basis for the period of time necessary to evaluate the new technology. A permit shall not be issued unless the permittee has provided supporting information which demonstrates to the Department that the technology is capable of consistently and reliably producing effluent or reclaimed water meeting the requirements of this chapter.

#### **(2) Plant Sites.**

(a) New treatment plants and modifications to existing plants shall be designed and located on the site so as to minimize adverse

effects resulting from odors, noise, aerosol drift and lighting. The permittee shall give reasonable assurance that the treatment plant or modifications to an existing plant shall not cause odor, noise, aerosol drift or lighting in such amounts or at such levels that they adversely affect neighboring residents, in commercial or residential areas, so as to be potentially harmful or injurious to human health or welfare or unreasonably interfere with the enjoyment of life or property, including outdoor recreation. Reasonable assurance may be based on such means as aeration, landscaping, treatment of vented gases, buffer zones owned or under the control of the permittee, chemical additions, prechlorination, ozonation, innovative structural design or other similar techniques and methods. All such design measures shall be included in the preliminary design or engineering report.

(b) All treatment plant sites shall be enclosed with a fence or otherwise designed with appropriate features that discourage the entry of animals and unauthorized persons.

(c) The potential for damage or interruption of operation because of flooding shall be considered by the permittee when siting new treatment plants and expansions of existing plants at inland or coastal locations. The treatment plant structures essential for the purpose of treating, stabilizing, conveying, or holding incompletely treated waste and electrical and mechanical equipment shall be protected from physical damage by the 100-year flood. The treatment plant shall be designed to remain fully operational and accessible during the 25-year flood; lesser flood levels may be designed for, if justified in the preliminary design or engineering report based on local conditions, water surface elevations, forces arising from water movement, wave heights, flood protection measures provided, and provisions for wastewater storage such that applicable water quality standards will be met; but in no case shall less than a 10-year flood be used. Design for flood protection shall include considerations for wave action as appropriate. These flood protection considerations shall be addressed in the preliminary design or engineering report and shall be based upon available information; where site-specific information is unavailable, sound engineering practices shall be used in siting and design of treatment plant facilities.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.086, 403.087, 403.088 FS. History—New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.400, Amended 12-24-96, 2-8-16.*

#### **62-600.405 Planning for Wastewater Facilities Expansion.**

(1) The permittee shall provide for the timely planning, design, and construction of wastewater facilities necessary to provide proper treatment and reuse or disposal of domestic wastewater and management of biosolids.

(2) The permittee shall routinely compare flows being treated at the wastewater facilities with the permitted capacities of the treatment, biosolids, reuse, and disposal facilities.

(3) When the three-month average daily flow for the most recent three consecutive months exceeds 50% of the permitted capacity of the treatment plant or reuse and disposal systems, the permittee shall submit to the Department a capacity analysis report.

(4) The initial capacity analysis report shall be submitted within 180 days after the last day of the last month in the three-month period referenced in subsection 62-600.405(3), F.A.C., or with the permittee's application for permit renewal, whichever occurs first.

(5) The permittee shall submit updated capacity analysis reports to the Department according to the following:

(a) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will not be equaled or exceeded for at least 10 years, an updated capacity analysis report shall be submitted to the Department at five-year intervals or with the permittee's application for permit renewal, whichever occurs first.

(b) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next 10 years, an updated capacity analysis shall be submitted to the Department annually.

(6) The initial capacity analysis report or an update of the capacity analysis report shall evaluate the capacity of the treatment plant and reuse or disposal systems and contain data showing the permitted and design capacities; monthly average daily flows, three-month average daily flows, and annual average daily flows for the past 10 years or for the length of time the facility has been in operation, whichever is less; seasonal variations in flow; flow projections based on local population growth rates and water usage rates for at least the next 10 years; an estimate of the time required for the three-month average daily flow to reach the permitted capacity; recommendations for expansions; and a detailed schedule showing dates for planning, design, permit application submittal, start of construction, and placing new or expanded facilities into operation. The report shall update the flow-related and loading information contained in the preliminary design report submitted as part of the most recent permit application.

(7) The capacity analysis report shall be signed by the permittee and shall be signed and sealed by a professional engineer registered in Florida.



(8) Documentation of timely planning, design, and construction of needed expansions shall be submitted according to the following schedule:

(a) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next five years, the report shall include a statement, signed and sealed by a professional engineer registered in Florida, that planning and preliminary design of the necessary expansion have been initiated.

(b) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next four years, the report shall include a statement, signed and sealed by an engineer registered in Florida, that plans and specifications for the necessary expansion are being prepared.

(c) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next three years, the permittee shall submit a complete permit application for the necessary expansion to the Department within 30 days of submittal of the capacity analysis report.

(9) The Secretary or Secretary's designee shall adjust the schedule specified in subsection 62-600.405(8), F.A.C., if the permittee requests and documents in the initial or updated capacity analysis report that adequate capacity will be available at the wastewater facility. Documentation shall include design and construction schedules, population growth rates, flow projections, and the timing of new connections to the collection/transmission system.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.086, 403.087, 403.088, 403.0881 FS. History—New 1-30-91, Formerly 17-600.405, Amended 2-8-16.*

#### **62-600.410 Operation and Maintenance Requirements.**

(1) All domestic wastewater facilities shall be operated and maintained in accordance with the applicable provisions of this chapter and related regulations so as to attain, at a minimum, the reclaimed water or effluent quality required by the wastewater facility permit.

(2) The operation of all treatment plants shall be under the supervision of an operator licensed in accordance with Chapter 62-602, F.A.C. All facility operations shall provide for the minimum care and maintenance of the facility in accordance with Chapters 62-602 and 62-699, F.A.C.

(3) All facilities and equipment necessary for the treatment, reuse, and disposal of domestic wastewater and biosolids shall be maintained, at a minimum, so as to function as intended.

(4) All permittees shall be responsible for making all facilities safe in terms of public health and safety at all times, including periods of inactivation or abandonment. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a treatment plant and shall specify what steps will be taken to safeguard public health and safety.

(5) In the event that the wastewater facilities or equipment no longer function as intended, are no longer safe in terms of public health and safety, or odor, noise, aerosol drift, or lighting adversely affect neighboring developed areas at the levels prohibited by paragraph 62-600.400(2)(a), F.A.C., corrective action (which may include additional maintenance or modifications of the treatment plant) shall be taken by the permittee. Other corrective action may be required to ensure compliance with rules of the Department.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 11-27-89, Amended 1-30-91, Formerly 17-600.410, Amended 12-24-96, 2-8-16.*

#### **62-600.420 Minimum Treatment Standards – Technology Based Effluent Limitations (TBELs).**

Except as specifically required by other Department rules or Florida Statutes, all domestic wastewater facilities shall provide, at a minimum, secondary treatment of wastewater prior to reuse or disposal. Secondary treatment requirements are specified below:

(1) Surface water disposal (excluding discharges to open ocean outfalls, but including discharges to Class III coastal waters)

(a) CBOD<sub>5</sub>

1. The annual average shall not exceed 20.0 mg/L,
2. The monthly average shall not exceed 25.0 mg/L,
3. The weekly average shall not exceed 40.0 mg/L,
4. The maximum-permissible concentration in any single sample shall not exceed 60.0 mg/L; and,
5. The monthly average percent removal shall not be less than 85%.

(b) Total Suspended Solids

1. The annual average shall not exceed 20.0 mg/L,

2. The monthly average shall not exceed 30.0 mg/L,
3. The weekly average shall not exceed 45.0 mg/L,
4. The maximum-permissible concentration in any single sample shall not exceed 60.0 mg/L; and,
5. The monthly average percent removal shall not be less than 85%.

(2) Surface water disposal via open ocean outfalls

(a) CBOD<sub>5</sub>

1. The annual average shall not exceed 25.0 mg/L,
2. The monthly average shall not exceed 25.0 mg/L,
3. The weekly average shall not exceed 40.0 mg/L,
4. The maximum-permissible concentration in any single sample shall not exceed 60.0 mg/L; and,
5. The monthly average percent removal shall not be less than 85%.

(b) Total Suspended Solids

1. The annual average shall not exceed 30.0 mg/L,
2. The monthly average shall not exceed 30.0 mg/L,
3. The weekly average shall not exceed 45.0 mg/L,
4. The maximum-permissible concentration in any single sample shall not exceed 60.0 mg/L; and,
5. The monthly average percent removal shall not be less than 85%.

(3) Reuse, land application, or groundwater discharge (including underground injection)

(a) CBOD<sub>5</sub>

1. The annual average shall not exceed 20.0 mg/L,
2. The monthly average shall not exceed 30.0 mg/L,
3. The weekly average shall not exceed 45.0 mg/L; and,
4. The maximum-permissible concentration in any single sample shall not exceed 60.0 mg/L.

(b) Total Suspended Solids

1. The annual average shall not exceed 20.0 mg/L,
2. The monthly average shall not exceed 30.0 mg/L,
3. The weekly average shall not exceed 45.0 mg/L; and,
4. The maximum-permissible concentration in any single sample shall not exceed 60.0 mg/L.

(4) Disinfection and pH control shall be provided in accordance with Rules 62-600.440 and 62-600.445, F.A.C.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.420, Amended 2-8-16.*

**62-600.430 Additional Treatment – Water Quality-Based Effluent Limitations (WQBELs).**

(1) Surface water discharge.

(a) In addition to the minimum treatment standards (TBELs) specified in Rule 62-600.420, F.A.C., facilities shall provide additional treatment when necessary to meet water quality standards for receiving surface waters pursuant to Chapter 62-302, F.A.C.

(b) The WQBELs shall be determined by the Department in accordance with Chapters 62-304 and 62-650, F.A.C., and shall be based upon the characteristics of the discharge, the receiving water characteristics, and the criteria and standards of Chapters 62-4 and 62-302, F.A.C., and this chapter. Requests for zones of mixing and any previous approved zones of mixing will be taken into consideration when determining WQBELs. No zone of mixing, as contained in Rule 62-4.244, F.A.C., shall be provided for any parameters for which the permittee fails or declines to provide the necessary characteristics of the discharge. WQBELs shall be met after disinfection.

(2) Ground water discharge.

(a) In addition to the TBELs specified in Rule 62-600.420, F.A.C., facilities shall provide additional treatment when needed to satisfy water quality standards for receiving ground waters.

(b) Such limitations shall be established based on the provisions of Chapters 62-304, 62-528, and 62-650, and subsection 62-610.850(2), F.A.C.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 11-27-89, Amended 1-30-91, Formerly 17-600.430, Amended 2-8-16.*

**62-600.440 Disinfection Requirements.**

(1) All wastewater treatment facilities shall be designed and operated to provide the level of disinfection necessary to protect public health such that the microbiological pollutants criteria contained in Chapter 62-302, F.A.C., are not exceeded for any receiving waters.

(2) The Department is aware of the possible harmful effects of chlorine used in conjunction with wastewater treatment and encourages the use of alternative disinfection methods.

(a) Criteria for establishing disinfection requirements for alternative disinfectants shall be accepted by the Department if the information provided by the permittee in the preliminary design or engineering report demonstrates that appropriate microbiological criteria will be met and provides reasonable assurance that public health is protected.

(b) Dechlorination shall be required by the Department to ensure that applicable water quality standards will be met and other appropriate reclaimed water or effluent limitations imposed pursuant to this chapter will be achieved.

(c) Maximum permissible residual levels in the reclaimed water or effluent immediately following chlorination and the need for dechlorination shall be established by the permittee and are subject to Department approval. Residual levels shall be established in the preliminary design or engineering report based on effects on the receiving surface or ground water and effects on reuse and land application systems.

(3) For ultraviolet disinfection, the impact of short-term interruptions in electrical service shall be evaluated in the preliminary design or engineering report along with the possible need for an uninterrupted power supply to ensure reliable and effective disinfection.

(4) Treatment requirements for disinfection are specified below for discharges from all facilities. Applicability of the requirements shall be as contained in Chapter 62-610, F.A.C., for reuse and land application systems; Rule 62-600.540, F.A.C., for ground water disposal by underground injection; Chapter 62-610, F.A.C., for ground water recharge using injection wells; Rule 62-600.510, F.A.C., for surface water discharges (excluding coastal and open ocean waters); Rule 62-600.520, F.A.C., for coastal and open ocean waters; Rule 62-611.600, F.A.C., for wetland discharges; and subsection 62-600.100(2), F.A.C., for septic systems and other closed-tank wastewater treatment systems permitted by the Department.

(5) Basic disinfection.

(a) Facilities required to provide basic disinfection shall meet the following criteria (using either MF or equivalent MPN methods):

1. The arithmetic mean of the monthly geometric means of the fecal coliform values collected during an annual period shall not exceed 200 per 100 mL of reclaimed water or effluent sample,

2. The geometric mean of the fecal coliform values for a minimum of 10 samples of reclaimed water or effluent, each collected on a separate day during a period of 30 consecutive days (monthly), shall not exceed 200 per 100 mL of sample,

3. No more than 10% of the samples collected during a period of 30 consecutive days shall exceed 400 fecal coliform values per 100 mL of sample; and,

4. Any one sample shall not exceed 800 fecal coliform values per 100 mL of sample.

(b) Regardless of the number of samples collected, the monthly geometric means of the fecal coliform values shall be calculated and reported on the Discharge Monitoring Report, and the arithmetic mean shall be calculated using the monthly geometric mean.

(c) Where chlorine is used for disinfection, a total chlorine residual of at least 0.5 mg/L shall be maintained after at least 15 minutes contact time at the peak hourly flow. Higher residuals or longer contact times shall be provided to meet the criteria for basic disinfection as described in paragraph 62-600.440(5)(a), F.A.C. The chlorine residual and contact time selected shall be justified in the preliminary design or engineering report. Rapid and uniform mixing shall be provided.

(6) High-level disinfection.

(a) Except as provided in paragraphs 62-600.440(6)(e) and (f), F.A.C., facilities required to provide high-level disinfection shall meet the following criteria (using MF or equivalent MPN methods):

1. Over a 30 day period (monthly), 75% of the fecal coliform values shall be below the detection limits,

2. Any one sample shall not exceed 25 fecal coliform values per 100 mL of sample; and,

3. Any one sample shall not exceed 5.0 mg/L of TSS at a point before application of the disinfectant.

(b) Where chlorine is used for disinfection, a total chlorine residual of at least 1.0 mg/L shall be maintained at all times. The minimum acceptable contact time shall be 15 minutes at the peak hourly flow. Higher residuals or longer contact times shall be provided to meet the criteria for high-level disinfection as described in paragraphs 62-600.440(6)(a) and (c), F.A.C. The chlorine

residual and contact time selected shall be justified in the preliminary design or engineering report. Rapid and uniform mixing shall be provided.

(c) Where chlorine is used for disinfection, new or expanded treatment facilities shall use the following design criteria for total chlorine residual and contact time:

1. For a reclaimed water or effluent containing 1,000 fecal coliforms, or less, per 100 mL, before disinfection, the product of the total chlorine residual used for design (expressed in mg/L) and the contact time at peak hourly flow (expressed in minutes) shall be at least 25.

2. For a reclaimed water or effluent containing greater than 1,000 and up to and including 10,000 fecal coliforms per 100 mL, before disinfection, the product of the total chlorine residual used for design (expressed in mg/L) and the contact time at peak hourly flow (expressed in minutes) shall be at least 40.

3. For a reclaimed water or effluent containing greater than 10,000 fecal coliforms per 100 mL, before disinfection, the product of the total chlorine residual used for design (expressed in mg/L) and the contact time at peak hourly flow (expressed in minutes) shall be at least 120.

(d) Alternate combinations of chlorine residuals and contact times used to meet the criteria in paragraph 62-600.440(6)(c), F.A.C., shall be accepted by the Department if justified in the preliminary design or engineering report.

(e) The requirements in subsection 62-600.440(7), F.A.C., shall serve as the high-level disinfection criteria if all of the following conditions are met:

1. Wetlands are used for the discharge or treatment of reclaimed water or effluent,
2. Public access to the wetlands is restricted; and,
3. The reclaimed water produced is not used in a reuse system permitted under Part III of Chapter 62-610, F.A.C.

(f) The requirements in subsection 62-600.440(7), F.A.C., shall serve as the high-level disinfection criteria if all the following conditions are met:

1. The discharge is to surface waters,
2. The discharge is serving as a back-up disposal system associated with a reuse system permitted under Part III of Chapter 62-610, F.A.C.,
3. The discharge is not subject to regulation by subsection 62-600.510(2) or (3), F.A.C., as a discharge to Class I waters or waters contiguous to or tributary to Class I waters; and,
4. The discharge is not subject to regulation by subsection 62-610.510(7), F.A.C., as a discharge to surface waters which are directly connected to Class F-I, G-I, or G-II ground water.

(7) Intermediate disinfection.

(a) Facilities required to provide intermediate disinfection shall meet the following criteria (using either MF or equivalent MPN methods):

1. The arithmetic mean of the monthly medians of the fecal coliform values collected during an annual period shall not exceed 14 per 100 mL of reclaimed water or effluent sample,
2. The median value of the fecal coliform values for a minimum number of 10 samples of reclaimed water or effluent, each collected on a separate day during a period of 30 consecutive days (monthly), shall not exceed 14 per 100 mL of sample,
3. No more than 10% of the samples collected during a period of 30 consecutive days shall exceed 43 fecal coliform values per 100 mL of sample; and,
4. Any one sample shall not exceed 86 fecal coliform values per 100 mL of sample.

(b) Regardless of the number of samples collected, the monthly medians of the fecal coliform values shall be calculated and reported on the Discharge Monitoring Report, and the arithmetic mean shall be calculated using the monthly medians.

(c) Where chlorine is used for disinfection, a total chlorine residual of at least 1.0 mg/L shall be maintained after at least 15 minutes contact time at the peak hourly flow. Higher residuals or longer contact times shall be provided to meet the criteria for intermediate disinfection as described in paragraph 62-600.440(7)(a), F.A.C. The chlorine residual and contact time selected shall be justified in the preliminary design or engineering report. Rapid and uniform mixing shall be provided.

(8) Low-level disinfection.

(a) Facilities required to provide low-level disinfection, allowable under highly controlled conditions for overland flow systems as specified in Part VI of Chapter 62-610, F.A.C., shall meet an effluent criteria of not more than 2,400 fecal coliform values per 100 mL of sample.

(b) The effluent or reclaimed water discharged from an overland flow system shall meet the applicable disinfection criteria specified in subsection 62-600.440(5), (6), or (7), F.A.C.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.440, Amended 12-24-96, 2-8-16.*

#### **62-600.445 pH Requirements.**

All facilities shall be designed and operated to maintain the pH in the reclaimed water or effluent, after disinfection, within the range of 6.0 to 8.5, except as provided in Chapters 62-610 and 62-611, and Rule 62-600.430, F.A.C.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 1-30-91, Formerly 17-600.445, Amended 2-8-16.*

### **PART III TREATMENT REQUIREMENTS**

#### **62-600.500 General.**

Generally, the treatment standards contained in this chapter shall be met before discharge into holding ponds (if applicable), reuse systems, disposal systems, or surface waters classified pursuant to Chapter 62-302, F.A.C. Treatment, at a minimum, shall consist of secondary treatment and, to the extent necessary, disinfection and pH control. Additional levels of treatment (beyond secondary) may be required pursuant to provisions contained in this chapter or in other Department rules. These treatment requirements shall be enforceable pursuant to the criteria in this part, and in Rules 62-600.400, 62-600.430, 62-600.440, 62-600.445, and 62-600.740, F.A.C. General technical guidance is provided by references listed in Rule 62-600.300, F.A.C. Discharges which would not result in the protection of surface and ground water quality criteria shall not be allowed. Effluent or reclaimed water limitations shall be achieved at the appropriate locations specified pursuant to both this part and Part II of Chapter 62-600, F.A.C.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.500, Amended 2-8-16.*

#### **62-600.510 Discharge to Surface Waters (Excluding Coastal and Open Ocean).**

(1) Outfalls for all facilities shall not discharge reclaimed waters or effluents which do not meet, at a minimum, applicable secondary treatment, basic disinfection and pH levels contained in Part II of Chapter 62-600, F.A.C., prior to discharge to the receiving surface waters or (as appropriate) additional WQBELs.

(2) Outfalls for facilities permitted to discharge to, tributary or contiguous to, or upstream of Class I waters on or before August 8, 1999, shall meet the discharge requirements of subsection 62-600.510(3) or (4), F.A.C., as applicable, or shall meet at a minimum the discharge requirements of the rules that were in effect at the time of permit issuance. Effluent limitations shall be no less stringent than contained in the previous permit unless allowed by subsection 62-620.620(4), F.A.C.

(3) Discharge of reclaimed water to Class I surface waters, or to waters contiguous to or tributary to Class I waters, shall meet the requirements of Rules 62-610.550 through 62-610.575, F.A.C., unless otherwise established in subsection 62-600.510(2), F.A.C.

(4) Discharge of reclaimed water upstream of Class I surface water (between 4 and 24 hours travel time) that is considered indirect potable reuse in accordance with paragraph 62-610.550(2)(b), F.A.C., shall meet the requirements of Rules 62-610.550 through 62-610.575, F.A.C., unless otherwise established in subsection 62-600.510(2), F.A.C.

(5) Outfalls shall not discharge reclaimed water or effluents into Class II waters.

(6) Discharge of reclaimed water or effluent to waters tributary to or contiguous to Class II waters shall meet the following requirements when the travel time of effluent or reclaimed water (the elapsed time from the point of final disinfection monitoring to arrival at Class II waters during maximum expected surface water velocities) is less than or equal to 72 hours:

(a) At a minimum, secondary treatment, intermediate disinfection, and required pH control, or (as appropriate) additional WQBELs;

(b) At a minimum, Class I reliability, as described in paragraph 62-600.300(4)(1), F.A.C. The Department shall approve other methods of providing facility reliability (as provided by paragraph 62-600.400(1)(b), F.A.C.) if the permittee provides reasonable assurances in the preliminary design or engineering report that the level of reliability provided is equivalent to Class I reliability; and,

(c) Storage of reclaimed water or effluent in a holding pond or storage tank with recirculating capability (for additional

treatment) as follows:

1. Where the travel time is less than or equal to 24 hours, storage volume requirements shall be equal to the average daily flow (at which adequate treatment can be provided or for which reuse/disposal is permitted, whichever is less) of the facility multiplied by the sum of the number of full days per week when the operator is not on-site plus an additional 24-hour period;

2. Where the travel time is greater than 24 hours, but less than or equal to 72 hours, storage volume requirements shall be equal to the average daily flow (at which adequate treatment can be provided or for which reuse/disposal is permitted, whichever is less) of the facility multiplied by the number of full days per week when the operator is not onsite; and,

3. The operator may be on-site more often than required pursuant to Chapter 62-699, F.A.C.; where on-site attendance is provided in lieu of storage capacity, such attendance schedules shall be stipulated by permit.

(7) Discharge of reclaimed water to surface waters that are directly connected to Class F-I, G-I, or G-II ground waters shall meet the requirements of Rules 62-610.550 through 62-610.575, F.A.C.

(8) Discharge of reclaimed water or effluent to wetlands shall meet the requirements of Chapter 62-611, F.A.C.

(9) Outfalls shall be designed with respect to depth and location so as to minimize oxygen demand and adverse effects on the receiving water.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088, 403.859 FS. History—New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.510, Amended 2-8-16.*

#### **62-600.520 Discharge to Surface Waters – (Coastal and Open Ocean).**

(1) Outfalls for all facilities shall not discharge reclaimed water or effluent to coastal or open ocean waters which does not meet, at a minimum, applicable secondary treatment and pH criteria contained in Rules 62-600.420 and 62-600.445, F.A.C. Where applicable, discharges to coastal waters shall be subject to the limitations of Rule 62-4.242, F.A.C., regarding Outstanding Florida Waters, and subsections 62-600.510(5) and 62-600.510(6), F.A.C., regarding discharges to Class II waters and waters contiguous to or tributary to Class II waters, respectively.

(2) Outfalls for all facilities shall not discharge effluent or reclaimed water to Class III coastal waters which has not also received basic disinfection prior to the discharge. Outfalls for all facilities shall not discharge effluent to open ocean waters without also being disinfected to the extent necessary to achieve Class III microbiological standards at the edge of the mixing zone established pursuant to subsection 62-600.520(3), F.A.C. If basic disinfection is not provided, the preliminary design report shall affirmatively demonstrate the level of disinfection that is more appropriate.

(3) Mixing zones for effluent discharges via ocean outfalls may be established as follows:

(a) All coastal water discharge facilities shall be subject to the applicable provisions of Rule 62-4.244, F.A.C.

(b) All open ocean water discharge facilities shall be subject to the applicable provisions of Rule 62-4.244, F.A.C., except that:

1. Appropriate dimensions of the mixing zone, for effluents having received treatment in accordance with subsections 62-600.520(1) and 62-600.520(2), F.A.C., and discharged from new facilities or modifications of existing facilities, shall be established by the permittee pursuant to the provisions of subsection 62-600.520(5), F.A.C.

2. Mixing zone criteria currently applicable to existing facilities shall be modified if necessary to meet Department rules by order of the Secretary, pursuant to subsection 62-600.520(5), F.A.C.

(4) Alternative levels of treatment shall be allowed for ocean outfall discharges to open ocean waters provided the following are met:

(a) The Secretary issues an order, upon petition of an affected permittee and after public hearing, that specifies alternatives to treatment requirements of subsection 62-600.420(2), and Rule 62-600.520, F.A.C.; and mixing zone requirements of Rule 62-4.244, F.A.C.; and,

(b) Such order shall remain in effect as long as applicable water quality criteria specified in Chapter 62-302, F.A.C., are met and the effluent meets statutory treatment requirements; however:

(c) Such order shall be issued only after affirmative demonstration by the Petitioner of the following:

1. Granting the order is in the public interest; and,

2. Compliance with minimum treatment standards and requirements in subsection 62-600.420(2), and Rule 62-600.520, F.A.C., for these discharges is not required to assure adequate protection of public health and the marine environment; and,

3. Granting the order will not interfere with existing uses or the designated uses of the receiving waters or contiguous waters, or otherwise impair the recreational use, bathing waters, or economic values associated with the area potentially affected by the

discharge; and,

4. There is no reasonable relationship between the economic, social, and environmental costs of compliance with the treatment requirements and the benefits associated therewith; and,

5. Oceanographic features influencing the effects of the proposed discharge support the proposed level of treatment and any proposed extent of the mixing zone; and,

6. The facility will be constructed (where applicable) and operated so that there is no occurrence of inadequately treated wastewater reaching contiguous coastal waters; and,

7. An acceptable monitoring program for the discharge has been proposed and would be implemented by the permittee.

(5) Discharges from outfalls to coastal recreation waters shall meet the criteria for enterococci established in 40 C.F.R. Part 131.41, July 1, 2013 (<http://www.flrules.org/Gateway/reference.asp?No=Ref-03209>), hereby adopted and incorporated by reference.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088, 403.859 FS. History—New 11-27-89, Amended 1-30-91, Formerly 17-600.520, Amended 10-11-13, 2-8-16.*

### **62-600.530 Reuse of Reclaimed Water and Land Application.**

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088, 403.859 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088, 403.859 FS. History—New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.530, Repealed 2-8-16.*

### **62-600.540 Underground Injection.**

(1) All facilities using Class I wells discharging domestic effluent into Class G-IV waters must meet the secondary treatment and pH limitations specified in subsection 62-600.420(3), and Rule 62-600.445, F.A.C. Disinfection is not required before disposal via any Class I well, whether from any new or existing facility except as provided in subsection 62-600.540(2), F.A.C.; however, all Class I well permittees must maintain capability to disinfect at a level that is consistent with the alternate discharge mechanism pursuant to Rule 62-528.415, F.A.C.

(2) All facilities using Class I municipal injection wells shall meet the requirements of Rules 62-528.440, 62-528.450, and 62-528.455, F.A.C.

(3) All facilities using Class V wells for the injection of reclaimed water to Class F-I, G-I, or G-II ground water for ground water recharge or for salinity barrier control shall meet the requirements of Rules 62-610.550 through 62-610.575, F.A.C.

(4) Reclaimed water aquifer storage and recovery shall meet the requirements of Rule 62-610.466, F.A.C.

(5) Surface equipment for all injection well facilities shall be such that manual backup capability to monitor wellhead pressure and flow is provided for systems utilizing automatic and continuous recording equipment. The design of new facilities and modifications of existing facilities shall incorporate additional surface equipment considerations such that:

(a) Effluent or reclaimed water pumping stations shall be protected from lightning and transient voltage surges. As a minimum, stations shall be equipped with lightning arrestors, surge capacitors or other similar protection devices, and phase protection; and,

(b) Effluent or reclaimed water pumping stations shall be provided with divided compartments to allow access for repair and maintenance purposes without interrupting operation; and,

(c) Potential surge and water hammer will not jeopardize the safety and integrity of the injection well system; and,

(d) Surface equipment for multi-well systems provides operational reliability and flexibility in the event of damage to or failure of the pipeline or a well; and,

(e) Access to the well for geophysical logging without major modifications is enabled; and,

(f) The wellhead shall be protected in a manner to minimize accidents or vandalism; and,

(g) Necessary screening for floatable solids prior to injection to avoid plugging of the formation is provided; and,

(h) Equipment with sufficient reliability and redundancy is provided in accordance with appropriate references contained in subsection 62-600.300(4), F.A.C.

(6) All facilities injecting reclaimed water or effluent to underground injection wells shall comply with the permitting requirements of Chapter 62-528, F.A.C.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088, 403.859 FS. History—New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.540, Amended 2-8-16.*

**62-600.550 Wastewater Management Requirements for the Wekiva Study Area.**

(1) Existing domestic wastewater facilities (facilities for which complete permit applications that included requests for construction of new or expanded facilities were received by the Department before the effective date of this rule) discharging within the Wekiva Study Area shall comply with the wastewater management requirements set forth in this rule within five years of the effective date unless otherwise established herein. New and expanded facilities shall comply with the requirements immediately.

(2) For the purpose of determining the applicability of wastewater management requirements for the Wekiva Study Area, Protection Zones shall be as delineated in Figure 15 of the Report of Investigations No. 104, "Wekiva Aquifer Vulnerability Assessment," Florida Geological Survey, June 2005, adopted and incorporated herein. Copies may be obtained from The Florida Geological Survey, Publications Office, 3000 Commonwealth Boulevard, Suite 1, Tallahassee, Florida 32303. For reuse and land application systems, determinations of which protection zone applies shall be based upon the wetted area. For reuse and land application systems located in two or more protection zones, the protection zone featuring the most stringent control measures shall apply to the entire reuse or land application system.

(a) The Primary Protection Zone corresponds to the area delineated as "Most Vulnerable;"

(b) The Secondary Protection Zone corresponds to the area delineated as "Vulnerable;" and,

(c) The Tertiary Protection Zone corresponds to the area delineated as "Less Vulnerable."

(3) The following wastewater management requirements apply to land application and reuse systems located within the Primary Protection Zone:

(a) New or expanded rapid-rate or restricted access slow-rate land application systems, as defined in Chapter 62-610, F.A.C., shall not be located within the Primary Protection Zone.

(b) Type I and II wastewater treatment facilities that use rapid-rate land application systems shall meet an annual average reclaimed water limitation of 3.0 mg/L Total Nitrogen, as N, unless used as a back-up to a public access reuse system.

(c) A rapid-rate land application system used as back-up to a public access reuse system shall meet the Total Nitrogen reclaimed water limitation contained in paragraph (d), below. In order to qualify as a back-up system, no more than 30% of the total annual wastewater treatment plant flow shall be directed to the back-up rapid-rate system.

(d) Type I and II wastewater treatment facilities that use public access reuse systems or restricted access irrigation systems shall meet an annual average reclaimed water limitation of 10.0 mg/L Total Nitrogen, as N.

(e) Type III wastewater treatment facilities that use land application or reuse systems shall meet an annual average reclaimed water limitation of 10.0 mg/L Total Nitrogen, as N.

(f) Land application of Class A or B biosolids is prohibited. Application of Class AA biosolids that are distributed and marketed in accordance with Chapter 62-640, F.A.C., is permissible.

(4) The following wastewater management requirements apply to land application and reuse systems located within the Secondary Protection Zone:

(a) Type I and II wastewater treatment facilities that use rapid-rate land application systems shall meet an annual average reclaimed water limitation of 6.0 mg/L Total Nitrogen, as N, unless used as back-up to a public access reuse system.

(b) A rapid-rate land application system used as back-up to a public access reuse system shall meet the Total Nitrogen reclaimed water limitation contained in paragraph (c), below. In order to qualify as a back-up system, no more than 30% of the total annual wastewater treatment plant flow shall be directed to the back-up rapid-rate system.

(c) Type I and II wastewater treatment facilities that use public access reuse systems or restricted access irrigation systems shall meet an annual average reclaimed water limitation of 10.0 mg/L Total Nitrogen, as N.

(d) Type III wastewater treatment facilities that use land application or reuse systems shall meet an annual average reclaimed water limitation of 10.0 mg/L, Total Nitrogen, as N. Existing facilities shall comply with this limitation within 10 years of the effective date.

(e) Land application of Class A or B biosolids is prohibited. Application of Class AA biosolids that are distributed and marketed in accordance with Chapter 62-640, F.A.C., is permissible.

(5) Wastewater treatment facilities that use land application or reuse systems located within the Tertiary Protection Zone shall meet the wastewater treatment requirements contained in Chapters 62-600 and 62-610, F.A.C., and other Department rules.

(6) Relief from the requirements of subsection (4) or (5), above, can be obtained from the Department if the permittee or permit applicant makes an affirmative demonstration, based on relevant water quality data, physical circumstances, or other credible information, that the discharge of reclaimed water is protective of surface and ground water quality with respect to the target nitrate-



nitrogen level of 0.2 mg/L, as N, for the spring vent as established in section c.1. of the Report. Such an affirmative demonstration shall include either paragraph (a) or (b), below:

(a) For existing facilities, monitoring data from wells included in an approved ground water monitoring plan showing the annual median value (a minimum of four samples) for nitrate nitrogen to be less than or equal to 0.2 mg/L, as N, at each compliance well, or

(b) For existing or new facilities, site specific information based upon one or more of the following factors, as necessary to make an affirmative demonstration:

1. The proximity to a spring, and natural and manmade interconnected surface and subsurface features,
2. Ground water flow gradient,
3. Permitted discharge volume,
4. Dilution,
5. Ground water quality data including the influence of background concentrations where applicable,
6. Site-specific geological conditions,
7. Research/studies including dye tracer tests,
8. Ground water transport modeling,
9. Ground water flow velocity,
10. Other relevant information.

(c) If relief is obtained under paragraph (7)(a) or (b), above, the permit shall include reclaimed water and ground water monitoring requirements and limits for nitrogen. At each permit renewal, the permittee shall provide an affirmative demonstration that the relief previously granted remains protective of surface and ground water quality and may use information already provided to the Department for the initial affirmative demonstration and subsequent ground water quality monitoring.

(7) Discharge of domestic wastewater effluent to surface waters within the Wekiva River Basin is restricted as follows:

(a) A new surface water discharge shall be permitted only as back-up to a public access reuse system and only if it complies with the provisions of Sections 403.086(4) and (5), F.S. In addition, the discharge shall constitute no more than 30% of the total annual wastewater treatment plant flow.

(b) Existing surface water discharges shall be restricted to serving as a back-up to a public access reuse system. In order to qualify as a back-up system, the discharge shall constitute no more than 30% of the total annual wastewater treatment plant flow.

(c) Surface water discharges also shall comply with any applicable Total Maximum Daily Loads adopted by the Department pursuant to Section 403.067, F.S., and shall meet reclaimed water or effluent limits established by procedures contained in Chapter 62-650, F.A.C.

(d) Subsection (7) shall apply only to discharges to surface waters subject to NPDES permitting requirements in Section 403.0885, F.S., and Chapter 62-620, F.A.C.

*Rulemaking Authority 369.318(1), 403.051(2)(a), 403.061(7), 403.087(2) FS. Law Implemented 369.318(1), 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 4-13-06, Amended 2-8-16.*

## **PART IV MONITORING AND REPORTING REQUIREMENTS**

### **62-600.650 General.**

(1) The frequencies of analysis, sample types, and monitoring locations for parameters to be monitored by a wastewater facility shall be specified in the wastewater facility permit.

(2) Wastewater treatment facilities shall provide safe access points for obtaining representative samples which are required by this chapter.

(3) The minimum requirements for parameters, frequencies of analysis, sample types, and monitoring locations required by this chapter may be increased or reduced by the Secretary or the Secretary's designee depending upon site-specific requirements, the water quality of surface and ground water, the hydrogeology of the area, the levels of treatment, the reliability of the facility, and the levels of disinfection provided. Where a reduction has been made, written justification shall be provided describing the reduction and its technical justification shall be available for public inspection at the Department's Tallahassee office and applicable district and branch offices.

(4) Monitoring requirements included in the wastewater permit are effective on the first day of the second month following the effective date of the permit. Until such time, the permittee shall continue to monitor and report in accordance with previously

effective permit requirements, if any.

(5) The owner, manager, or operator of a domestic wastewater facility, or agent or employee thereof, shall not submit misleading, false, or inaccurate information or operational reports to the Department, either knowingly or through neglect.

(6) No owner or permittee of a wastewater treatment plant shall knowingly allow or encourage any operator in his employ to violate any rule, regulation, or law related to treatment plant operation.

*Rulemaking Authority 403.061(7) FS. Law Implemented 403.061(13) FS. History—New 2-8-16.*

**62-600.660 Treatment Facility Monitoring.**

(1) Wastewater treatment facilities shall monitor the flow, the influent for CBOD<sub>5</sub> and TSS, and the reclaimed water or effluent for all reclaimed water or effluent parameters as required by the permit. The minimum schedule for sampling and testing parameters to be monitored at a wastewater treatment plant is specified in Figure 1 below.

Figure 1. Minimum Schedule for Sampling and Testing of Domestic Wastewater Treatment Plant Monitoring Parameters by Permitted Capacity							
Parameters	2,000 gpd up to, but not including, 25,000 gpd	25,000 gpd up to, but not including, 50,000 gpd	50,000 gpd up to, but not including, 500,000 gpd	0.5 mgd up to, but not including, 1 mgd	1 mgd up to, but not including, 5 mgd	5 mgd up to, but not including, 15 mgd	15 mgd and above
Flow, pH <sup>1</sup> Chlorine Residual <sup>2</sup>	daily 2, 3, or 5/wk <sup>7</sup>	daily 5/wk	daily 5/wk	daily 5/wk	continuous	continuous	continuous
Dissolved Oxygen	daily 2, 3, or 5/wk <sup>7</sup>	daily 5/wk	daily 5/wk	daily 5/wk	daily 7/wk	daily 7/wk	daily 7/wk
Suspended Solids <sup>4</sup> CBOD <sub>5</sub> <sup>5</sup> Nutrients	monthly	monthly	every two weeks <sup>3</sup>	weekly	weekly	daily 7/wk	daily 7/wk
Chlorine Residual <sup>5</sup>	monthly	monthly	every two weeks <sup>3</sup>	weekly	daily 7/wk	daily 7/wk	daily 7/wk
Fecal Coliform <sup>4,6</sup>	monthly	monthly	every two weeks <sup>3</sup>	weekly	weekly	daily 5/wk	daily 5/wk

<sup>1</sup>Hourly measurements during the period of required operator attendance may be substituted for continuous measurement.

<sup>2</sup>Total chlorine residual measured for disinfection effectiveness (after chlorine contact). Hourly measurements during the period for required operator attendance may be substituted for continuous measurement except for systems permitted under Parts III and V of Chapter 62-610, F.A.C. Continuous measurement shall be provided for all systems permitted under Parts III and V of Chapter 62-610, F.A.C., regardless of permitted capacity.

<sup>3</sup>Reuse and land application facilities (which include rapid-rate, slow-rate, absorption fields and other systems pursuant to Chapter 62-610, F.A.C.) less than 100,000 gpd, may sample monthly. (This reduction does not apply to injection wells pursuant to Chapter 62-528, F.A.C., and reuse systems requiring high-level disinfection.)

<sup>4</sup>For reuse systems requiring high-level disinfection, samples shall be obtained and reported daily, 7 days per week for systems of 0.5 mgd and greater, 4 days per week for systems of at least 50,000 gpd but less than 0.5 mgd, and 3 days per week for systems less than 50,000 gpd; or daily during the period required for operator attendance, whichever is less. At permit renewal, reduction to 4 days per week for systems of 0.5 mgd and greater or to 3 days per week for systems of at least 50,000 gpd but less than 0.5 mgd may be requested if no violations for these parameters have occurred in the last 12 months. For systems requiring high-level disinfection, the reduction allowed by note 3 does not apply.

<sup>5</sup>Total chlorine residual measured for dechlorination effectiveness.

<sup>6</sup>Not applicable to reuse systems discharging to Class I waters or waters contiguous to or tributary to Class I waters or to reuse

systems injecting into Class F-I, G-I, or G-II ground waters. These systems shall monitor 7 days per week for total coliform, regardless of permitted capacity, as specified in Parts III and V of Chapter 62-610, F.A.C.

<sup>7</sup>The daily frequency shall be 2, 3, or 5 days per week consistent with the required operator attendance specified in paragraph 62-699.310(2)(a), F.A.C.

(2) Wastewater treatment facilities with a permitted capacity of 100,000 gallons per day or greater that discharge to ground water via reuse and land application systems shall monitor the reclaimed water or effluent for the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., (except for asbestos, total coliforms, color, odor, and residual disinfectants) annually.

(3) Sample types.

(a) Grab samples shall be used to test pH, chlorine residual, dissolved oxygen and other dissolved gases, fecal coliforms and other microbiological parameters, cyanide, oil and grease, dissolved constituents in field-filtered samples (ortho-phosphorus, metals, etc.), specific conductance, un-ionized ammonia, volatile organic compounds, total recoverable petroleum hydrocarbons, and temperature.

(b) Grab samples shall be used to test CBOD<sub>5</sub>, TSS, and nutrients at facilities with a permitted capacity less than 100,000 gallons per day. Except as provided in paragraphs 62-600.660(3)(c) and (d), F.A.C., all other samples for CBOD<sub>5</sub>, TSS, and nutrients shall be flow proportioned, composite samples and compositing periods shall be 24, 16, or 8 hours based on the facility's staffing requirement. In no case shall the compositing period be less than 8 hours.

(c) Grab samples shall be used to test for TSS where a facility is required to meet the 5.0 mg/L TSS limitation associated with high-level disinfection for a reuse system permitted under Chapter 62-610, F.A.C.

(d) Except for the parameters listed in paragraph 62-600.660(3)(a), F.A.C., 24 hour flow proportioned, composite samples shall be used to analyze reclaimed water or effluent for the primary and secondary drinking water standards.

(e) Grab samples shall be collected during periods of minimal treatment plant pollutant removal efficiencies or maximum organic loading in the reclaimed water or effluent. The actual time and flow conditions during which such samples are taken shall be recorded.

(4) Sampling locations.

(a) Influent samples shall be collected so they do not contain digester supernatant or returned activated sludge, or any other plant process recycled waters.

(b) Reclaimed water or effluent analyses shall generally be performed on samples collected after final treatment and:

1. Before discharge to holding ponds for reuse and land application systems pursuant to Chapter 62-610, F.A.C.,
2. After holding ponds, if applicable, and immediately before discharge to surface waters for treatment plants (including overland flow and wetland treatment systems) discharging to surface waters; and,
3. After holding ponds, if applicable, and immediately before discharge to ground water for treatment plants discharging to ground water via underground injection.

(c) For systems involving high-level disinfection, compliance with the TSS limitations shall be achieved, and sampled for, after the filter and before application of the disinfectant.

*Rulemaking Authority 403.061(7) FS. Law Implemented 403.061(13) FS. History—New 2-8-16.*

**62-600.670 Ground Water Monitoring.**

(1) Wastewater treatment facilities which are designed so that some or all of the reclaimed water or effluent may enter ground waters shall conduct ground water monitoring in accordance with Chapter 62-520, F.A.C., and this chapter.

(2) Where reclaimed water is applied to multiple sites permitted under Part III of Chapter 62-610, F.A.C., one or more of the sites (representative of each site's hydrogeological characteristics, soil characteristics, vegetative cover, and reclaimed water application method, etc.) shall be selected by the applicant and approved in writing by the Department as the model site(s) for monitoring the ground water.

(3) The minimum schedule for ground water monitoring is specified in Figure 2 below:

Figure 2. Minimum Sampling Frequency for Ground Water Monitoring					
Parameter	Reuse and Land Application	Reuse and Land Application	Injection to Aquifer	Injection to Storage	Injection to Class F-I, G-I, or G-II Ground Water, except to

	Systems – New facilities <sup>1</sup> with a design capacity < 100,000 gpd	Systems – New facilities <sup>1</sup> with a design capacity ≥ 100,000 gpd and existing facilities	and Recovery (ASR) Systems	Water, except ASR Systems	Class F-I, G-I, G-II, or ASR Systems
Water Level	Semiannually	Quarterly	Quarterly	Monthly	Monthly
Total Nitrate Nitrogen (as N)	Semiannually	Quarterly			Monthly
Total Dissolved Solids	Semiannually	Quarterly			Monthly
Arsenic, Total Recoverable	Semiannually	Quarterly			
Cadmium, Total Recoverable	Semiannually	Quarterly			
Chloride (as Cl)	Semiannually	Quarterly			
Chromium, Total Recoverable	Semiannually	Quarterly			
Lead, Total Recoverable	Semiannually	Quarterly			
Fecal Coliform	Semiannually	Quarterly	Quarterly		
pH	Semiannually	Quarterly			
Total Sulfate	Semiannually	Quarterly			
Total Kjeldahl Nitrogen (as N)				Monthly	Monthly
Total Phosphorus (as P)					Monthly
Turbidity	Semiannually	Quarterly	Quarterly	Monthly	Monthly
Specific Conductance			Quarterly		
Ground Water Standards <sup>2</sup>			Quarterly	Quarterly	

<sup>1</sup>In accordance with subsection 62-520.600(10), F.A.C., new facilities are facilities which have filed a complete permit application after July 1, 1994.

<sup>2</sup>As specified in Rules 62-520.420 and 62-520.460, F.A.C.

(4) Grab samples shall be used to test for all ground water parameters.

(5) Monitoring wells shall be purged prior to sampling to obtain a representative sample.

*Rulemaking Authority 403.061(7) FS. Law Implemented 403.061(13) FS. History—New 2-8-16.*

### **62-600.680 Reporting**

(1) As required by the permit, the permittee shall submit monitoring results on Discharge Monitoring Report, Form 62-620.910(10), F.A.C., in accordance with subsection 62-620.610(18), F.A.C., as follows:

(a) Discharge Monitoring Reports shall be mailed to the Department at the address specified in the permit or electronically submitted using the Department's Business Portal at <http://www.fldepportal.com/go/>. Reports shall be submitted in accordance with the frequencies specified on the Discharge Monitoring Report forms attached to the wastewater permit and be postmarked or entered electronically by the 28th day of the month following the month of operation; and,

(b) Discharge Monitoring Reports shall be submitted for each required monitoring period including periods of no discharge.

(2) Monitoring results required by subsection 62-600.660(2), F.A.C., shall be reported to the Department annually on the Discharge Monitoring Report, Form 62-620.910(10), F.A.C. Except as provided in paragraphs (a) and (b), below, the Discharge Monitoring Report shall be submitted so as to be received by the Department by January 28 of each year.

(a) During years when an application for permit renewal is submitted, the Discharge Monitoring Report shall be submitted with the permit application.

(b) During years when an application for permit renewal is not submitted, a certification stating that no new non-domestic wastewater dischargers have been added to the collection system since the last reclaimed water or effluent analysis was conducted may be submitted with the Discharge Monitoring Report. Monitoring not required this period should be noted on the Discharge Monitoring Report.

*Rulemaking Authority 403.061(7) FS. Law Implemented 403.061(13) FS. History—New 2-8-16.*

## **PART V PERMITTING**

### **62-600.700 General.**

(1) Applicants for a wastewater permit shall demonstrate sufficient disposal or reuse capacity to satisfy the demand during the term of the permit. Permit applications for a treatment facility may be made separately or in conjunction with applications for effluent disposal or reclaimed water reuse systems.

(2) Permitted Capacity.

(a) The permittee shall establish design capacities for the wastewater facilities, including capacities for all treatment, reuse, or disposal options, in the permit application and shall specify the associated time frames (e.g., annual average daily flow, monthly average daily flow, three-month average daily flow). The time frames selected shall reflect seasonal variations in flows, if any.

(b) The Department shall include the permitted capacities in the facility permit and shall specify the associated time frames (e.g., annual average daily flow, monthly average daily flow, three-month average daily flow). The permitted capacities shall not exceed the design capacities. The Department shall establish a permitted capacity less than the design capacity if:

1. The total available reuse and disposal permitted capacity is less than the treatment facility design capacity, or

2. The preliminary design or engineering report does not provide reasonable assurances that the proposed wastewater facility technology will function as intended at the design capacity requested by the permittee.

(c) The permitted capacities for the treatment, reuse, and disposal systems are not required to be the same.

(3) Classification of Projects as "Reuse" or "Disposal." All domestic wastewater permits issued by the Department shall include designation of each portion of the project as either "reuse" or "effluent disposal" and shall list the permitted capacity associated with each portion of the project.

*Rulemaking Authority 403.051, 403.061, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881 FS. History—New 11-27-89, Amended 1-30-91, Formerly 17-600.700, Amended 12-24-96, 2-8-16.*

**62-600.720 Operation and Maintenance Manual.**

(1) In accordance with Rule 62-620.630, F.A.C., permittees of newly constructed or modified domestic wastewater treatment plants and effluent disposal or reuse facilities shall provide notification to the Department that a draft operation and maintenance manual is available prior to placing the newly constructed or modified portion of the facility into operation. Within six months after placing the new or modified facilities into operation, the permittee shall provide notification that a current operation and maintenance manual is available. Permittees of existing domestic wastewater treatment plants and effluent disposal or reuse facilities shall maintain and make available for inspection copies of current operation and maintenance manuals for the facilities, in accordance with Rule 62-620.350, F.A.C. The manual shall provide for the reliable and efficient operation and maintenance of the facilities as follows:

(a) The detail of the manual shall be consistent with the complexity of the system. The manual shall be developed in accordance with the unique requirements of the individual wastewater facility and shall provide the operator with adequate information and description regarding the design, operation, and maintenance features of the facility involved.

(b) The manual shall include basic hydraulic and engineering design criteria for the facility, as well as information and procedures required for normal control and distribution of wastewater, biosolids, and effluent within the facility. In addition, information concerning process control and performance evaluation for the facility, as well as equipment and procedural descriptions (including any notification/reporting requirements of appropriate agencies) for emergency operating conditions and listing of spare parts to have on hand shall be included. Regular maintenance and repair instructions for all equipment; laboratory testing equipment and monitoring procedures; safety and personnel requirements; and a “trouble shooting” problem guide shall be included in the manual.

(c) Operation and maintenance manual requirements for reuse and land application facilities as set forth in Chapter 62-610, F.A.C.

(d) Operation and maintenance manual requirements for underground injection well facilities are set forth in subsection 62-528.415(3), F.A.C.

(e) A copy of the approved manual shall be provided to the operator by the permittee of the facility. The manual shall be available for reference at the facility or other approved site. The permittee shall maintain at least one copy of the approved manual.

(2) The manual shall be revised to reflect any facility alterations performed or to reflect experience resulting from facility operation.

(3) The technical criteria and guidance contained in the technical references listed in subsection (4), below, are hereby incorporated by reference and shall be used, where applicable, in developing operation and maintenance manuals, except as provided in paragraphs (a) and (b), below.

(a) Deviations from the criteria contained in the references listed in subsection (4), below, shall be approved by the Department if the operation and maintenance manual provides reasonable assurance that the proposed operation and maintenance criteria will meet the requirements of this rule.

(b) The Department shall require deviation from the criteria contained in the references listed in subsection (4), below, upon a finding that conformance to them will not assure compliance with the requirements of this rule or other rules of the Department.

(4) Technical References.

(a) Water Pollution Control Federation, 1976. Manual of Practice No. 11 – Operation of Wastewater Treatment Plants. Water Pollution Control Federation, 601 Wythe Street, Alexandria, Virginia 22314-1994, <http://www.wef.org>.

(b) California State University, Department of Civil Engineering, Third Edition 1988. Operation of Wastewater Treatment Plants – Volumes 1 and 2. California State University, 6000 J Street, Sacramento, California 95819-6025, <http://www.ecs.csus.edu/ce/>.

(c) California State University, Department of Civil Engineering, First Edition 1987. Advanced Waste Treatment. California State University, 6000 J Street, Sacramento, California 95819-6025, <http://www.ecs.csus.edu/ce/>.

(d) New York State Department of Environmental Conservation, 1980. Manual of Instruction for Wastewater Treatment Plant Operators – Volumes I, II. Health Education Service, P.O. Box 7126, Albany, New York 12224, <http://www.healthresearch.org/store>.

(e) U.S. Environmental Protection Agency, 1977. Aerobic Biological Wastewater Treatment Facilities – Process Control Manual. EPA-430/9-77-006. Environmental Quality Instructional Resources Center, Ohio State University, 1200 Chambers Road – Room 310, Columbus, Ohio 43212, <http://www.epa.gov/nscep/index.html>.

(f) U.S. Environmental Protection Agency, 1977. Package Treatment Plants Operations Manual. EPA-430/9-77-005. Environmental Quality Instructional Resources Center, Ohio State University, 1200 Chambers Road – Room 310, Columbus, Ohio 43212, <http://www.epa.gov/nscep/index.html>.

(5) Members of the public may request and obtain copies of the references listed in subsection (4), above, by contacting the appropriate publisher at the address indicated. Copies of the above publications are on file and available for review in the Department's Tallahassee offices and in the Department's district and branch offices where they may be reviewed during normal business hours.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088 FS. History—New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.720, Amended 12-24-96, 2-8-16.*

### **62-600.735 Operation and Maintenance Performance Report.**

(1) All applications to renew permits for treatment, reuse, or disposal facilities as required by Form 62-620.910(2), F.A.C., shall include a detailed operation and maintenance performance report. This report will be used, in part, to establish reasonable assurances that these facilities will meet permit limitations during the period for which the permit is requested.

(2) The report shall be jointly prepared by staff responsible for operation of these facilities, by the permittee or the permittee's delegated representative, and by a professional engineer registered in Florida.

(3) The report shall evaluate the capability of treatment, reuse, and disposal facilities to function as intended during the period for which the permit is requested.

(4) The report shall:

(a) Evaluate the physical condition of each treatment unit, the treatment efficiencies of each treatment process, the overall treatment efficiency of the treatment plant, performance trends, and the operation and maintenance program.

(b) Identify physical, capacity, performance, and operation and maintenance problems and deficiencies which need immediate attention and areas which are potential problems. The report shall identify the consequences if these problems and deficiencies are not corrected in a timely fashion.

(c) Provide recommendations and schedules for corrective actions.

(d) Evaluate the following components, systems, and processes, if included in the facilities being considered for permit renewal:

1. Pumping facilities (raw wastewater, intermediate, recirculation, biosolids, effluent, or reclaimed water pump stations).
2. Preliminary treatment (screens, grit chambers, comminutors).
3. Primary, intermediate, and final clarifiers (structures, scum and biosolids removal equipment, baffles, weirs, sand and grit accumulation).
4. Activated sludge system (blowers, mechanical aerators, aeration system, return sludge system, diffusers, sand and grit accumulation).
5. Trickling filters (wastewater distribution system, media, filter bottom, blowers).
6. Rotating biological contactors (drive mechanisms, media integrity).
7. Filters (media, distribution equipment, filter bottoms, backwash facilities).
8. Coagulation/flocculation (mixers, motors, flocculators, drives).
9. Nutrient removal systems.
10. Disinfection (contact chambers, chlorinators, ozonators, ultraviolet systems).
11. Biosolids treatment and handling (thickeners, chemical conditioning, aerobic digesters, anaerobic digesters, biosolids collection equipment, heat exchange facilities, gas collection equipment).
12. Biosolids dewatering (drying beds, filter presses, vacuum filters).
13. Chemical feed facilities.
14. Blowers and motors associated with treatment processes.
15. Instrumentation and monitoring equipment.
16. Sample collection and laboratory analysis.
17. Effluent or reclaimed water pumping and transmission facilities (pumps, motors, valves).
18. Outfalls.
19. Injection wells.
20. Reuse systems.

21. Wetlands systems.

(5) The collection system shall not be evaluated unless treatment plant problems result from the operation of collection and transmission facilities (such as excessive infiltration/inflow, septic wastewater, introduction of toxic substances, or lack of controls on industrial wastewater discharges to the collection system).

(6) The report shall be signed by the owner and the facility's lead operator and shall be signed and sealed by a professional engineer registered in Florida.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088 FS. History—New 1-30-91, Formerly 17-600.735, Amended 12-24-96, 2-8-16.*

**62-600.740 Compliance and Enforcement.**

(1) General.

(a) The Department uses the information submitted on Discharge Monitoring Reports required by Part IV of this chapter to establish facility compliance, or noncompliance, with the treatment standards of this rule. For such evaluations, the appropriate reclaimed water or effluent concentrations contained in subsection 62-600.740(2), F.A.C., shall be used for compliance determinations.

(b) The Department may also take enforcement action based on its own sample collection activities using any of the annual, monthly, weekly, or maximum-permissible concentrations specified in subsection 62-600.740(2), F.A.C. Use of such data shall not preclude enforcement action pursuant to the provisions of this or any other chapter of the Florida Administrative Code. The use of grab or composite samples for evaluating annual, monthly or weekly compliance shall be consistent with grab or composite sampling technique (as opposed to sample scheduling) requirements of part IV of this chapter.

(c) Nothing in this or any other rules of the Florida Administrative Code shall preclude the use, by the Department, of additional or more representative sampling data in establishing compliance status.

(2) Reclaimed Water or Effluent Compliance Concentrations.

(a) Compliance of a domestic wastewater facility with secondary treatment standards shall be determined in accordance with Rule 62-600.420, F.A.C.

(b) In order to determine compliance of a domestic wastewater facility with treatment standards more stringent than secondary such as WQBELs (i.e., Rule 62-600.430, F.A.C.), and certain reuse systems (i.e., Chapter 62-610, F.A.C.), the following compliance concentrations shall be applicable.

1. The annual average pollutant value shall not exceed the design concentration established for the reclaimed water or effluent.

2. The monthly average pollutant value shall not exceed one and one-quarter times the design concentration for the reclaimed water or effluent.

3. The weekly average pollutant value shall not exceed one and one-half times the design concentration specified for the reclaimed water or effluent.

4. The maximum-permissible pollutant concentration in any single sample shall not exceed two times the design concentration specified for the reclaimed water or effluent.

(c) In order to determine compliance of a domestic wastewater facility with the alternative secondary preapplication treatment standards specified in Part VI of Chapter 62-610, F.A.C., the design criteria specified therein shall apply as compliance concentrations at all times (i.e., the design criteria applies on an annual, monthly, weekly, and maximum-permissible concentration basis). Other compliance concentrations in this section shall be applicable upon release of the effluent from operational control in order to determine compliance with other requirements of this chapter.

(d) In order to determine compliance of a domestic wastewater facility with disinfection criteria (other than the basic level) specified in subsection 62-600.440(4), F.A.C., for outfalls discharging to open ocean waters, the disinfection level approved by the Department shall apply as compliance concentrations at all times (i.e., the design criteria applies on an annual, monthly, weekly, and maximum-permissible concentration bases).

(3) Biosolids compliance criteria shall be in accordance with the applicable portions of Chapter 62-640, F.A.C.

*Rulemaking Authority 403.051, 403.061, 403.086, 403.087, 403.088 FS. Law Implemented 403.021, 403.051, 403.061, 403.062, 403.085, 403.086, 403.087, 403.088, 403.121, 403.131, 403.161 FS. History—New 11-27-89, Amended 1-30-91, Formerly 17-600.740, Amended 12-24-96, 2-8-16.*