CHECKLIST

FLORIDA WATER WELL CONTRACTOR LICENSE APPLICATION

1. Letter of Transmittal
2. Application for a State Water Well Contractors License.
3. Chapter 62-521 – Wellhead Protection
4. Chapter 62-524 – New Potable Water Well Permitting in Delineated Areas
5. Chapter 62-528 – Underground Injection Control
6. Chapter 62-531 – Water Well Contractors Licensing Requirements
7. Chapter 62-532 – Water Well Permitting and Construction Requirements
8. Chapter 62-555 Permitting, Construction, Operation, and Maintenance of Public Water Systems.
9. Water Well Contractor Disciplinary Guidelines and Citations Dictionary
10. Chapter 40A-2 – Consumptive Use of Water
11. Chapter 40A-3 – Regulation of Wells
12. Well Disinfection (one page)

Northwest Florida Water Management District

152 Water Management Drive, Havana, Florida 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)

Phone: (850) 539-5999 • Fax: (850) 539-2693

Brett Cyphers
Executive Director

SUBJECT: FLORIDA WATER WELL CONTRACTOR'S LICENSE

Dear Applicant:

Thank you for your interest in becoming licensed as a water well contractor in the State of Florida. In order to be considered for a Florida water well contractor's license, please submit the following items:

1. Application for a State Water Well Contractor's License.
2. One-hundred and fifty dollar ($150.00) non-refundable application fee.
3. Letters from at least three (3) persons attesting to the length of time and dates you have been working in the water well industry, specifically well construction. The letters must be from: 1) Licensed water well contractors, 2) Well drillers, 4) Water well parts and equipment vendors, or 3) Well inspectors from a government agency.
4. List of ten wells that you have physically (as responsible driller on site) constructed, abandoned, or repaired under the supervision of a licensed water well contractor. The list of wells must cover a two year consecutive period within the last five years. For water wells constructed in Florida, a copy of the completion report form (including permit number) must accompany the application.
5. Documentation of completion of twelve (12) approved course hours within the last two year period and conversion of these hours to Continuing Education Credits by the Florida Water Well Administrator.

We strongly recommend including information relating to well contractor licenses the applicant holds with other states, and/or has previously held with a water management district in the State of Florida. Documentation of these licenses will facilitate review of the applicant's licensing package.

When we receive a complete application package and have verified that the applicant meets the minimum experience criteria, we will then schedule applicant to take the Water Well Contractor's Examination at any District office. This is a written test consisting of (150) multiple choice, fill in the blank, and true/false questions. The examination is designed to test your knowledge of general well drilling principles and the District's rules and regulations. The applicant must complete the examination with a score of at least (70%) seventy percent.

After the applicant has successfully completed the required examination, and assuming there are no petitions from the other Water Management Districts, we can issue a water well contractor license. Once the applicant is licensee, he/she may apply for permits to construct, repair, or abandon water wells anywhere in the State of Florida.

I hope this information is helpful. Questions or requests for further assistance should be directed to Tom Brown at (850) 539-5999.

Sincerely,

Thomas Brown

Thomas Brown
Program Manager, Water Well Regulation

LS/ls
Enclosures

Northwest Florida Water Management District
152 Water Management Drive
Havana, Florida 32333

Date:_____
License Number:_____

APPLICATION FOR A STATE OF FLORIDA WATER WELL CONTRACTOR LICENSE

INSTRUCTIONS

I. Type or print using black ink and mail a completed application, including application fee, to the water management district in which your business is located. If you are an out of state applicant, you should apply to the water management district in which you intend to conduct business.

a. Name of person to be licensed:_____
(Name as it is to appear on the license)

b. Name of business or affiliation:_____

c. Located at:_____
Street Address

d. _____, _____, _____, _____
City County State Zip Code

e. Primary Phone: (_____) ____-_____, Cell Phone: (_____) _____-_____
Area Code Phone Number Area Code Phone Number

f. _____
Mailing address if different from above

g. Email Address:_____

h. ( ) Enclosed is a check or money order for $150.00 (non-refundable) for application fee.

II. Make a check or money order for $150.00 (non-refundable) application fee payable to the Water Management District in which you are applying. **PLEASE DO NOT SEND CASH.**

III. Both of the methods described below must be used to establish the minimum two years of experience required to qualify as an applicant for a water well contractor license.

a. Provide three letters from persons attesting to the length of time the applicant has been working in the water well business as a major activity. These letters must be from: 1) license water well contactors; 2) water well drillers; and, 3) water well inspectors employed by a governmental agency.

b. Provide list of ten wells the applicant has constructed, repaired, or abandoned over a two year period and within the last five years; seven of the wells listed must have been constructed by the applicant.

Note: For wells constructed, repaired, or abandoned in Florida, a copy of the completion report form must accompany this application.

Well Owner & Location (Address, City, County	Well Use	Completion Date (Approximate)	Depth	Diameter	Permit Number
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

c. Provide documentation of having completed twelve hours of coursework approved by the Florida Water Well Administrator; and, the applicant has converted the twelve approved coursework hours to continuing education credits.

IV. Examinations shall be scheduled and administered by the Water Management District.

Please schedule me for an examination. I understand that the application is not complete until I have passed the required examination with a score of at least 70 percent correct answers. I understand that I must pass the examination within three consecutive testing periods or I must reapply including submitting a new application fee of $150.00.

_____ _____

Signature of Applicant Date

FOR DISTRICT USE ONLY

	DATE	INITIALS
Application Complete	_____	_____
List of wells complete and satisfactory	_____	_____
Applicant notified of examination date	_____	_____
Applicant failed first examination and was notified	_____	_____
Applicant failed second examination and was notified	_____	_____
Applicant failed third examination and was notified	_____	_____
Applicant passed examination and was notified	_____	_____

_____ _____ _____

Process Number License Number Date Issued

CHAPTER 62-521
WELLHEAD PROTECTION

62-521.100 Scope and Intent of Wellhead Protection.

Rulemaking Authority 403.061 FS. Law Implemented 403.021, 403.062 FS. History–New 7-13-95, Repealed 2-16-12.

62-521.200 Definitions for Wellhead Protection.

For the purpose of this chapter the following definitions shall apply. For other terms used in this chapter, the definitions contained in Chapters 62-520 and 62-522, F.A.C., shall prevail over definitions established elsewhere by Department rule.

(1) "Community Water System" means a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

(2) "Existing Installation" means any installation including its zone of discharge established under Chapter 62-522, F.A.C., or other Department rule, regulated under this chapter which, on or before 90 days after the effective date of this chapter, or before the commencement of construction of a potable water well whose wellhead protection area would include that installation: either has a Department construction or operation permit or authorization; has submitted a complete construction permit application; has filed a notice of intent to file an application under Rule 62-17.041, F.A.C., or an application under Rule 62-17.051, F.A.C., or has filed an application or request for a meeting with the Department under Rule 62-17.540, F.A.C.; or is exempt from Department permitting or ground water monitoring requirements. Except as provided in Rule 62-521.400, F.A.C., this chapter does not apply to existing installations.

(3) "Installation" means any structure, equipment, facility, or appurtenances thereto, operation, or activity which may be a source of pollution.

(4) "New Installation" means any installation other than an existing installation as defined in subsection (2) above.

(5) "Non-Transient Non-Community Water System" means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year.

(6) "Potable Water Well" means any water well which supplies water for human consumption to a community water system or to a non-transient non-community water system. For the purpose of this rule, any potable water well installed by an installation used to serve that installation's operation is excluded from this definition.

(7) "Wellhead Protection Area" means an area designated by the Department consisting of a 500 foot radial setback distance around a potable water well where ground water is provided the most stringent protection measures to protect the ground water source for a potable water well and includes the surface and subsurface area surrounding the well.

Rulemaking Authority 403.061 FS. Law Implemented 403.021, 403.061 FS. History–New 7-13-95.

62-521.400 Ground Water Protection Measures in Wellhead Protection Areas.

(1) The Department shall require new installations to meet the following restrictions within a wellhead protection area.

(a) New domestic wastewater treatment facilities shall be provided with Class I reliability as described in Chapter 62-600, F.A.C., and flow equalization. New wastewater ponds, basins, and similar facilities shall be lined or sealed to prevent measurable seepage. Unlined reclaimed water storage systems are allowed for reuse projects permitted under Part III of Chapter 62-610, F.A.C.

(b) New reuse and land application projects shall be prohibited except for new projects permitted under Part III of Chapter 62-610, F.A.C.

(c) New domestic wastewater residuals land application sites, as defined in Chapter 62-640, F.A.C., shall be prohibited.

(d) New discharges to ground water of industrial wastewater, as regulated under Chapters 62-660, 62-670, 62-671, and 62-673, F.A.C., shall be prohibited except as provided below:

1. All non-contact cooling water discharges (without additives); and

2. Discharges specifically allowed within a wellhead protection area in Chapters 62-660, 62-670, 62-671 and 62-673, F.A.C.

(e) New phosphogypsum stack systems, as regulated under Chapter 62-673, F.A.C., are prohibited.

(f) New Class I and Class III underground injection control wells, as regulated in Chapter 62-528, F.A.C., are prohibited.

(g) New Class V underground injection control wells, as regulated in Chapter 62-528, F.A.C., are prohibited except as provided below:

1. Thermal exchange process wells (closed-loop without additives) for use at single family residences; and

2. Aquifer storage and recovery systems wells, where the injected fluid meets the applicable drinking water quality standards in Chapter 62-550, F.A.C.

(h) New solid waste disposal facilities regulated under Chapter 62-701, F.A.C., are prohibited.

(i) New generators of hazardous waste, as regulated under Chapter 62-730, F.A.C., which excludes household hazardous waste as defined in 40 C.F.R. Part 261.4(b)(1) (1994), hereby incorporated and adopted by reference, shall comply with the secondary containment requirements of 40 C.F.R. Part 264 Subpart I (1994), hereby incorporated and adopted by reference.

(j) New hazardous waste treatment, storage, disposal, and transfer facilities requiring permits under Chapter 62-730, F.A.C., are prohibited.

(k) New aboveground and underground tankage of hazardous wastes regulated under Chapter 62-730, F.A.C., is prohibited.

(l) Underground storage tanks regulated under Chapter 62-761, F.A.C., shall not be installed 90 days after the effective date of this rule. Replacement of an existing underground storage tank system regulated under Chapter 62-761, F.A.C., within the same excavation, or addition of new underground storage tanks regulated under Chapter 62-761, F.A.C., at a facility with other such underground storage tanks is exempt from this provision, provided that the replacement or new underground storage tank system is installed with secondary containment as required in Chapter 62-761, F.A.C.

(m) Aboveground storage tanks regulated under Chapter 62-762, F.A.C., shall not be installed 90 days after the effective date of this rule. Replacement or upgrading of an existing aboveground storage tank or addition of new aboveground storage tanks which are regulated under Chapter 62-762, F.A.C., at a facility with other such aboveground storage tanks is exempt from this provision, provided that the replacement or new aboveground storage tank system meets the applicable provisions of Chapter 62-762, F.A.C.

(n) Storage tanks which meet the auxiliary power provisions of subsection 62-555.320(6), F.A.C., for operation of a potable water well and storage tanks for substances used for the treatment of potable water are exempt from the provisions of this rule. Storage tanks regulated under Chapters 62-761 and 62-762, F.A.C., shall continue to meet the requirements of those chapters.

(o) Applicants should take note that to prevent the vertical migration of fluids, a water management district may require a construction permit for new water wells, which shall meet the applicable construction standards contained in Chapter 62-532, F.A.C.

(2) Emergency equipment, including storage tanks, that is necessary to provide power to ensure a continuous supply on an emergency basis of public water supply, electrical power, sewer service, telephone service, or other essential services that are of a public benefit are exempt from the provisions of this chapter. This does not exempt these services from meeting other applicable Department rules.

(3) Discharge to ground water from Department approved remedial corrective actions for contaminated sites located within wellhead protection areas shall not be subject to the discharge restrictions in this chapter.

(4) Nothing herein supersedes more stringent setback or permitting requirements contained in other Department rules.

Rulemaking Authority 403.061 FS. Law Implemented 403.021, 403.061, 403.087, 403.088 FS. History–New 7-13-95.

CHAPTER 62-524
NEW POTABLE WATER WELL PERMITTING IN DELINEATED AREAS

62-524.200 Definitions for New Potable Water Well Permitting in Delineated Areas.

(1) "Available Potable Water System" means, for the purpose of this chapter, a public water system, as defined in Rule 62-550.200, F.A.C., which has sufficient capacity and is legally able to serve specific additional connections.

(2) "Delineated Area" means a surface area identified pursuant to Rule 62-524.420, F.A.C., within which ground water contamination is known to exist or which encompasses vulnerable areas or areas in which the Department provides a subsidy for restoration or replacement of contaminated drinking water supplies.

(3) "Ground Water Contamination" means, for the purpose of this chapter, the presence outside an applicable zone of discharge in Class F-I, G-I, or G-II ground water of one or more substances in quantities which exceed a primary drinking water maximum contaminant level as set forth in Chapter 62-550, F.A.C., present an imminent hazard pursuant to Section 403.855, F.S., or for which the State Health Officer in the Department of Health, based upon a written request from the Department, has advised the Department in writing is present in deleterious amounts. The determination, under this section, of the existence of ground water contamination based upon the presence of deleterious amounts shall not constitute the establishment of a standard under either Chapter 62-520 or 62-550, F.A.C. If the concentration of any primary drinking water standard in the natural background quality of the ground water is greater than the stated maximum contaminant level, the representative background value shall be the prevailing standard.

(4) "New Potable Water Well" means any excavation that is drilled or bored, or converted from non-potable water use, after delineation in an area delineated pursuant to Rule 62-524.400, F.A.C., when the intended use of such excavation is for the location and acquisition of ground water which supplies water for human consumption. This does not include repair of an existing potable water well.

(5) "Vulnerable area" is an area in which research or monitoring data indicate that ground water is vulnerable to nitrate contamination because of the presence of potential sources of nitrate contamination, and because of land surface and subsurface characteristics.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309, 376.307 FS. History–New 5-16-89, Amended 3-3-92, Formerly 17-524.200, Amended 2-7-95.

62-524.420 Procedures for Delineation of Areas for Application of New Potable Water Well Permitting.

(1) Based upon available data, the Department shall identify and locate, for the purpose of application of the requirements of this chapter, areas within which ground water contamination is known to exist or which encompasses vulnerable areas or areas in which the Department provides a subsidy for restoration or replacement of contaminated drinking water supplies.

(2) The Department shall rely on data from samples collected and analyzed using Department approved quality assurance/quality control procedures. Where quality assurance/quality control procedures are not documented the Department shall evaluate the data for completeness and accuracy in order to determine acceptability for use in delineation under this chapter.

(3) Sources of ground water data to be used for delineation of areas under this chapter shall include:

(a) Local, state, and federal agencies.

(b) Water management districts.

(c) Department programs.

(4) For wells, sites, or sources with known ground water contamination, where insufficient site specific ground water data exist for determination of contaminant plume boundaries, a delineated area shall be established in the following manner:

(a) A 1000-foot setback from the well, site or source boundary.

(b) Where data from the distribution or movement of ground water contamination indicate that a 1000-foot setback is insufficient the Department shall establish an alternate setback based on such data.

(5) For sites with a history of application of ethylene dibromide where insufficient site specific ground water data exist for determination of contaminant plume boundaries, the Department shall delineate an area which encompasses the area of application and a setback, based on data on the distribution of ethylene dibromide contamination, or a 1000-foot setback, whichever is larger.

(6) For sites where a hydrogeologic investigation of ground water has been conducted and the nature and extent of a contaminant plume is documented and sufficient data exist for predictive ground water modelling, the Department shall delineate an area which encompasses the ground water contamination and its predicted movement for the next two years.

(7) Where the source or site which resulted in an area being delineated is the subject of remediation for ground water clean-up, the effect of this remediation shall be considered by the Department in subsequent delineation updates.

(8) For areas in which the Department provides a subsidy for restoration or replacement of contaminated drinking water supplies through extending existing water lines or developing new water supply systems under Sections 376.307(4)(b)3. and (c), F.S., the Department shall delineate an area which encompasses such extended water lines or water lines constructed as part of a new water system and a 1000-foot setback.

(9) For areas in which the Department determines that ground water is vulnerable to contamination with nitrate, the Department shall delineate such vulnerable areas. The Department shall determine where vulnerable areas exist by using the following information when available:

(a) Physical properties of soils;

(b) Vadose zone media;

(c) Hydrogeologic characteristics of aquifer systems;

(d) Depth to ground water;

(e) Recharge;

(f) Karst features;

(g) Topography;

(h) Presence of Class G-II ground water or other potable ground water with less than 10,000 mg/L total dissolved solids;

(i) Water quality data; and

(j) Nitrogen application or loading rates for potential sources of nitrate contamination.

(10) In delineating areas under this rule, the Department shall coordinate with other affected agencies, particularly those receiving delegation under Rule 62-524.800, F.A.C., in the technical aspects of delineation.

(11) The Department shall present delineated areas to the Environmental Regulation Commission for approval at rulemaking public hearings duly noticed as required by Section 120.54, F.S.

(a) At such public hearings the Commission, when approving delineated areas, shall consider the known ground water contamination and its projected movement until the next delineation update.

(b) If requested by the Commission, the Department shall present the data, predictive ground water modelling, and mapping procedure used to delineate each area presented to the Commission.

(c) The Commission shall consider any other competent evidence regarding delineated areas.

(d) Approval by the Commission of a delineated area shall result in that area being included on maps or other means of location and description prepared by the Department as described in subsections (12) and (13). Each approved map or other means of location and description shall contain an effective date and shall be made available as provided in subsections (12) and (13).

(12) To facilitate the permitting process, the Department shall provide maps which indicate all sections which contain any portion of a delineated area. Prior to construction of a new potable water well within a mapped section, the potential applicant should contact the appropriate permitting authority which shall determine if the proposed well is within a delineated area. Such maps or other information shall be made available by the Department to interested persons upon written request and upon payment of appropriate costs.

(13) Following each update, the Department shall make available to water management districts, regional planning councils, the Department of Health, and county building and zoning departments, maps or other information on areas for application of the

requirements of this chapter.

(a) Where maps are provided, they shall be of an appropriate scale as determined by the Department based on the accuracy and precision of the data.

(b) For each delineated area the Department shall provide a list of those contaminants to be tested pursuant to Rule 62-524.600, F.A.C., and shall specify any casing or solvent bond restrictions.

(14) Maps or other information on areas for application of the requirements of this chapter shall be periodically updated by the Department. Additional areas, or revision to existing areas, for application of the requirements of this chapter may be delineated at any time as technical information becomes available.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309, 376.307 FS. History–New 5-16-89, Amended 3-25-90, 7-4-91, 5-6-93, Formerly 17-524.420, Amended 2-7-95, 12-9-96.

62-524.430 Maps Containing Delineated Areas.

The following maps, which are incorporated herein by reference, show surface areas, delineated pursuant to Rule 62-524.420, F.A.C. Each map listed contains a month and year which corresponds to the date the Department prepared the most recent map showing any portion of a delineated area. Copies of these maps may be examined at the Department of Environmental Protection, Bureau of Information Systems, or copies may be obtained, upon receipt of reproduction and other appropriate costs, from the Department of Environmental Protection, Bureau of Information Systems, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(1)	ALACHUA COUNTY:	
	Archer	11/94
	Gainesville East	11/94
	High Springs	11/94
	High Springs SW	11/94
	Micanopy	11/94
	Monteocha	11/94
	Newberry	11/94
	Orange Heights	11/94
	Waters Lake	11/94
(2)	BREVARD COUNTY:	
	Melbourne East	11/94
(3)	BROWARD COUNTY:	
	Cooper City	11/94
	Fort Lauderdale North	11/94
	Fort Lauderdale South	11/94
	North Miami	11/94
	Port Everglades	11/94
(4)	CITRUS:	
	Crystal River	11/94
	Homosassa	11/94
(5)	COLUMBIA:	
	Columbia	11/94
	Fort White	11/94
	Lake City West	11/94
	Mikesville	11/94
(6)	DADE COUNTY:	
	Hialeah	11/94
	North Miami	11/94
	South Miami	11/94
(7)	DESOTO:	
	Arcadia	11/94

(8)	DUVAL COUNTY:	
	Baldwin	11/94
	Jacksonville	11/94
	Jacksonville Heights	11/94
	Marietta	11/94
(9)	ESCAMBIA COUNTY:	
	Cantonment	11/94
	Pensacola	11/94
	Seminole (AL)	11/94
	West Pensacola	11/94
(10)	GILCHRIST:	
	High Springs SW	11/94
	Waters Lake	11/94
(11)	GLADES COUNTY:	
	Moore Haven	11/94
(12)	HAMILTON:	
	Ellaville	11/94
	Fort Union	11/94
(13)	HARDEE:	
	Griffins Corner	11/94
(14)	HERNANDO:	
	Masaryktown	11/94
	Port Richey NE	11/94
	Weekiwachee Springs	11/94
(15)	HIGHLANDS COUNTY:	
	Avon Park	11/94
	Child	11/94
	Crewsville	11/94
	Frostproof	11/94
	Lake Arbuckle	11/94
	Lake Arbuckle SW	11/94
	Lake June In Winter	11/94
	Lake Placid	11/94
	Sebring	11/94
	Venus SW	11/94
(16)	HILLSBOROUGH COUNTY:	
	Brandon	11/94
	Citrus Park	11/94
	Dover	11/94
	Ft. Lonesome	11/94
	Lithia	11/94
	Lutz	11/94
	Plant City West	11/94
	Sulphur Springs	11/94
	Tampa	11/94
	Thonotosassa	11/94
	Wimauma	11/94
(17)	INDIAN RIVER:	

	Vero Beach	11/94
(18)	JACKSON COUNTY:	
	Alford	11/94
	Bascom	11/94
	Campbellton	11/94
	Cottondale East	11/94
	Cottondale West	11/94
	Cypress	11/94
	Dellwood	11/94
	Fairchild (GA)	11/94
	Graceville	11/94
	Kynesville	11/94
	Malone	11/94
	Marianna	11/94
	Oakdale	11/94
	Grangeburg (AL)	11/94
	Saffold (AL)	11/94
	Sills	11/94
	Sneads	11/94
	Steam Mill (GA)	11/94
(19)	LAKE COUNTY:	
	Astatula	11/94
	Center Hill	11/94
	Clermont East	11/94
	Clermont West	11/94
	Eustis	11/94
	Howey In The Hills	11/94
	Lake Louisa	11/94
	Lake Louisa SW	11/94
	Lake Nellie	11/94
	Leesburg East	11/94
	Mascotte	11/94
	Sorrento	11/94
	Umatilla	11/94
(20)	LEON COUNTY:	
	Tallahassee	11/94
(21)	LEVY:	
	Morriston	11/94
(22)	MADISON:	
	Cherry Lake	11/94
	Madison	11/94
	Nankin (GA)	11/94
	Pinetta	11/94
(23)	MANATEE:	
	Ft. Lonesome	11/94
	Wimauma	11/94
(24)	MARION COUNTY:	
	Belleview	11/94
	Lady Lake	11/94

	Lake Weir	11/94
	Ocala East	11/94
	Ocala West	11/94
	Oxford	11/94
(25)	MARTIN COUNTY:	
	Indiantown	11/94
	Okeechobee 4 SE	11/94
(26)	ORANGE COUNTY:	
	Apopka	11/94
	Astatula	11/94
	Clermont East	11/94
	Eustis	11/94
	Forest City	11/94
	Lake Jessamine	11/94
	Lake Louisa	11/94
	Orlando East	11/94
	Orlando West	11/94
	Sorrento	11/94
	Windermere	11/94
	Winter Garden	11/94
(27)	OSCEOLA:	
	Ashton	11/94
	Intercession City	11/94
	Lake Louisa SW	11/94
	Narcoossee	11/94
(28)	PASCO:	
	Lutz	11/94
(29)	PINELLAS:	
	Elfers	11/94
(30)	POLK COUNTY:	
	Alturas	11/94
	Auburndale	11/94
	Babson Park	11/94
	Bartow	11/94
	Bereah	11/94
	Davenport	11/94
	Dundee	11/94
	Eloise	11/94
	Frostproof	11/94
	Gum Lake	11/94
	Hesperides	11/94
	Homeland	11/94
	Intercession City	11/94
	Lake Arbuckle	11/94
	Lake Louisa SW	11/94
	Lake Wales	11/94
	Lake Weohyakapka	11/94
	Lakeland	11/94
	Mulberry	11/94

	Nichols	11/94
	Plant City East	11/94
	Polk City	11/94
	Providence	11/94
	Socrum	11/94
	Winter Haven	11/94
(31)	PUTNAM:	
	Baywood	11/94
(32)	SANTA ROSA:	
	Milton South	11/94
	Pace	11/94
(33)	SEMINOLE COUNTY:	
	Aurantia	11/94
	Bithlo	11/94
	Casselberry	11/94
	Forest City	11/94
	Geneva	11/94
	Sanford	11/94
	Titusville SW	11/94
(34)	ST. JOHNS COUNTY:	
	Picolata	5/00
(35)	ST. LUCIE:	
	Fort Pierce NW	11/94
	Okeechobee 1 NE	11/94
(36)	SUMTER:	
	Bushnell	11/94
	Webster	11/94
(37)	SUWANNEE:	
	Dowling Park	11/94
	Fort Union	11/94
	Hildreth	11/94
	Hillcoat	11/94
	Live Oak East	11/94
	O'Brien	11/94
(38)	VOLUSIA COUNTY:	
	Aurantia	11/94
	De Land	11/94
	Geneva	11/94
	Orange City	11/94
	Titusville SW	11/94

Rulemaking Authority 373.309, 403.061 FS. Law Implemented 373.309 FS. History–New 3-25-90, Amended 10-4-90, 7-4-91, Formerly 17-524.430, Amended 2-7-95, 6-27-00.

62-524.550 Well Construction Requirements for New Potable Water Well Permitting in Delineated Areas.

(1) New potable water wells shall comply with the minimum construction standards contained in Rule 62-532.500, F.A.C. Additional requirements may be assigned by the permitting authority relative to depth restrictions, location of screened or open hole interval, and length of casing where warranted by local specific information.

(2) Methods for constructing new potable water wells shall be limited to rotary drilling, boring, or other method specifically

approved by the permitting authority pursuant to subsection 62-524.700(1), F.A.C., which meets the water well construction criteria in Rule 62-532.500, F.A.C., except as required below.

(a) Well casing and liner pipe shall be new, free of breaks, corrosion and dents, straight and true, and not out of round. Welded or seamless black or galvanized steel pipe or casing, or stainless steel pipe or casing, or approved types of nonmetallic pipe shall be used for well casing or liner pipe.

(b) Solvent-bonded couplings shall be prohibited in areas with known ground water contamination which includes solvent components.

(c) To prevent the interchange of water and loss of artesian pressure, contaminated, unconfined ground water intervals shall be sealed off prior to drilling through the underlying confining interval. Uncontaminated, unconfined ground water intervals shall be sealed off or otherwise protected prior to drilling into deeper, contaminated ground waters.

(d) For any well casing installed in a bore hole, the annular space shall be filled from bottom to top with not less than a nominal two inch thickness of neat cement grout.

(e) A concrete pad measuring three feet by three feet by four inches shall be constructed around the elevated portion of the casing so that the casing is centered in the pad to prevent soil erosion and seepage of surface contamination into the annular space.

(f) A minimum elevation of one foot of casing above land surface shall be required.

(g) A raw water tap shall be provided to allow sampling of the well before exposure to storage or treatment.

(h) The well casing shall be visibly and permanently marked above the land surface with the latitude and longitude and the permit number issued by the permitting authority for that well.

(i) To the extent practical, potable water wells shall be located outside an area delineated under Rule 62-524.420, F.A.C.

(j) Where the source of contamination and the direction of ground water flow are known, in an area delineated under Rule 62-524.420, F.A.C., to the extent practical, potable water wells shall be located upgradient of the source.

(k) New potable water wells shall be located on ground least subject to inundation.

(l) Any new potable water well constructed within a delineated area that does not meet the construction standards of this section shall be abandoned and plugged in accordance with Rule 62-532.500, F.A.C., and applicable water management district rules.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309 FS. History–New 5-16-89, Amended 3-25-90, 3-3-92, Formerly 17-524.550, Amended 12-9-96.

62-524.600 Water Quality Testing for New Potable Water Well Delineated Areas.

(1) New potable water wells shall be tested using methods as specified in Rule 62-524.420, F.A.C., for the presence in the untreated water of the ground water contamination which resulted in the delineation.

(2) The Department shall accept only test results obtained from water samples collected and analyzed by the Department of Health. The well construction permit applicant shall be responsible for the cost of sample collection, shipping, and analysis.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309 FS. History–New 5-16-89, Amended 3-3-92, 5-6-93, Formerly 17-524.600.

62-524.650 Clearing for Use of New Potable Water Wells in Delineated Areas.

(1) If no ground water contamination is found upon testing of a new potable water well in a delineated area pursuant to Rule 62-524.600, F.A.C., the Department of Health shall be responsible for issuance of a letter of clearance to the well construction permit applicant.

(2) If ground water contamination is found upon testing pursuant to Rule 62-524.600, F.A.C., or other ground water contamination is found, a well shall not be cleared for use without a demonstration, through water quality testing, that a filter or other permanent remedy prevents the users of the well from being exposed through ingestion, inhalation, or dermal absorption, as appropriate for a contaminant, to ground water contamination.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309 FS. History–New 3-3-92, Formerly 17-524.650, Amended 12-9-96.

62-524.700 Permit Requirements for New Potable Water Wells in Delineated Areas.

(1) A construction permit shall be obtained from the appropriate water management district pursuant to Rule 62-524.800,

F.A.C., for all new potable water wells prior to installation or conversion. Applicants shall submit a proposed well design with the completed application, and the permit fee, to the permitting authority. Permit application shall be made under existing well construction permitting programs pursuant to Chapter 62-532, F.A.C., using forms adopted by the permitting authority for this purpose. In addition to the general requirements of this chapter, the permit shall address the following requirements through special conditions:

(a) Well construction including method of construction, depth, location of cased and screened intervals, casing material and grouting.

(b) Any special cleaning requirements for casing or drilling equipment.

(c) Water quality testing.

(d) Unique well identifiers where needed.

(2) Permitting and construction of new potable water wells, except for a well to be used for a public water system as defined in Rule 62-550.200, F.A.C., are prohibited in delineated areas where a distribution line of an available potable water system is within 500 feet of the boundary of the property for which a well construction permit is being sought. Such prohibition applies unless the property owner or applicant obtains documentation from the public water system or the Department's Water Supply Restoration and Replacement Program, and submits such documentation to the permitting entity, which demonstrates either of the following:

(a) That economic factors caused by physical or legal impediments to construction to a distribution line prevent the property owner or permit applicant from obtaining potable water through connection to the distribution line; or

(b) That necessary water distribution line extensions (excluding plumbing and meters) cannot be completed within 30 days of application to the Department for water supply restoration or replacement.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309 FS. History–New 5-16-89, Amended 3-3-92, Formerly 17-524.700, Amended 12-9-96.

62-524.710 Exemption from New Potable Water Well Permitting in Delineated Areas.

Exemption from the requirements of Rule 62-524.700, F.A.C., shall be granted to an applicant by the Department or the permitting authority upon demonstration using hydrogeological, water quality, and other pertinent information that the exemption will not result in the impairment of the intent and purpose of this chapter. Detailed requirements for each exemption shall be negotiated between the permit applicant and the permitting authority on a case by case basis.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309, 373.326 FS. History–New 5-16-89, Formerly 17-524.710.

62-524.720 Fees for New Potable Water Wells in Delineated Areas.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309 FS. History–New 5-16-89, Amended 3-3-92, Formerly 17-524.720, Repealed 2-16-12.

62-524.730 Inspections of New Potable Water Wells in Delineated Areas.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309, 373.319 FS. History–New 5-16-89, Formerly 17-524.730, Repealed 2-16-12.

62-524.740 Violations and Penalties for New Potable Water Wells in Delineated Areas.

(1) Prohibited Acts.

(a) It shall be a violation of Section 373.309, F.S., and this chapter to construct, convert from non-potable use, or abandon any potable water well, or use for human consumption any well subject to permit under this chapter without having obtained a permit pursuant to Rule 62-524.700, F.A.C. This prohibition shall apply to both the water well contractor and the well owner.

(b) It shall be a violation of Section 373.309, F.S., and this chapter to use for human consumption, after delineation, any water well subject to permit under this chapter without having performed water quality testing pursuant to Rule 62-524.600, F.A.C.

(c) It shall be a violation of Section 373.309, F.S., and this chapter to use for human consumption, after delineation, any water well subject to permit under this chapter in which contaminants have been found without a demonstration through water quality testing that a filter or other means of preventing the users of such a well from being exposed to ground water contamination is effective.

(2) Penalties.

(a) Any person who violates any provision of this chapter, order, or permit issued under the authority of this chapter shall, upon conviction, be guilty of a misdemeanor of the second degree, punishable as provided in Sections 775.082 and 775.083, F.S. Continuing violation after an order or conviction shall constitute a separate violation for each day the violation occurs.

(b) Any water well contractor who is in violation of paragraph (1)(a) shall, in addition to paragraph (2)(a), also be subject to the penalty provisions in Chapter 62-531, F.A.C., including the license suspension and revocation provisions contained therein.

Rulemaking Authority 373.309, 403.061, 403.062 FS. Law Implemented 373.309, 373.323, 373.336 FS. History–New 5-16-89, Amended 3-25-90, Formerly 17-524.740.

CHAPTER 62-528
UNDERGROUND INJECTION CONTROL

62-528.645 Plugging and Abandonment Permit for Class V Wells
62-528.705 General Permit for the Construction of a Closed-Loop Air Conditioning Return Flow Well
62-528.710 General Permit for the Construction of a Swimming Pool Drainage Well
62-528.900 Forms for Underground Injection Control

62-528.100 Underground Injection Control: Purpose.

(1) The purpose of Chapter 62-528, F.A.C., Underground Injection Control (UIC), is to protect the quality of the State's underground sources of drinking water and to prevent degradation of the quality of other aquifers adjacent to the injection zone that may be used for other purposes. This purpose is achieved through rules that govern the construction and operation of injection wells in such a way that the injected fluid remains in the injection zone, and that unapproved interchange of water between aquifers is prohibited.

(2) The permitting concept of a Technical Advisory Committee (TAC), which has been successfully used, is formally described in this rule. The Technical Advisory Committee serves a need for interagency coordination to facilitate the permitting process, and to provide the permitting authorities the advice from the several disciplines necessary to adequately evaluate complex deep injection well system permit applications. A Technical Advisory Committee has been established in each Department District to assist and provide advice to the permitting authority on the technical aspects of underground injection. The Technical Advisory Committee is normally composed of representatives from the Department's District and Tallahassee offices, the appropriate water management district, local environmental program and the United States Geological Survey (USGS). In addition, the United States Environmental Protection Agency (EPA) shall serve as advisors to the Technical Advisory Committee in order to provide technical assistance regarding any specific matter. The Technical Advisory Committee is chaired by a representative of the Department permitting authority, who is responsible for forwarding the Technical Advisory Committee recommendations to the permitting authority. In the event a water management district also issues a permit, the water management district representative on the Technical Advisory Committee is responsible for forwarding the Technical Advisory Committee recommendations to the water management district permitting authority. As part of its interdisciplinary and interagency role, the TAC provides the means for review and determination by the Department of what is acceptable to or approvable based on the requirements of this rule chapter and Chapter 403, F.S. The TAC serves two advisory purposes. It provides expert advice to the District which processes the underground injection control permit. The TAC also works directly with the applicant or permittee in providing expertise at various stages of the permitting process or whenever a decision is needed on a technical matter contained in this chapter. The TAC receives the information, and if requested by the applicant, permittee, or District, will meet always in public. When an applicant or permittee requests an alternative method, material, timeframe or other change contemplated by this chapter, the information to support that request shall be provided to each TAC member, who is listed in the permit or whose name and address is readily available from the Department District office which processes the permit, by whatever means chosen by the applicant or permittee. Any additional information needed by the TAC to make its recommendation to the Department shall be transmitted to the applicant or permittee in writing by the District office processing the permit. After receipt of all requested information made available to the members, and based on site-specific factors such as hydrogeology and ground water quality of the site, either of the following will happen. More discussion with the applicant or permittee will ensue, with a public meeting if a meeting of the TAC is requested or with consideration of the TAC advice, the Department's District shall transmit in writing its decision concerning the request, consistent with the requirements in this chapter. A permitting authority is not bound by a Technical Advisory Committee recommendation and may reject, modify, or amend the recommendation provided its actions are consistent with the provisions of this chapter. The Department's decision shall be a permit modification if revision of a permit condition is involved. Any such decision is final agency action subject to the procedural safeguards contained in Chapter 120, F.S. Once a project has had TAC review, minor revisions can be approved by the Department without further TAC review (for example, changes in cement additives, minor changes to well depth, sampling parameters, testing procedures, mechanical integrity testing procedures or casing setting points due to actual field conditions).

Rulemaking Authority 373.309, 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.702, 403.721 FS. History–New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.11, 17-28.011, 62-28.011, Amended 8-10-95, 6-24-97.

62-528.110 Underground Injection Control: Declaration and Intent.

(1) This rule establishes a State Underground Injection Control Program that is appropriate to the hydrogeology of Florida and is consistent with the requirements of the federal Underground Injection Control Program.

(2) It is the intent of this chapter that the injection of wastes underground shall not adversely interfere with any designated use of ground water as specified in subsection 62-520.410(1), F.A.C., or cause violations of water quality standards in underground sources of drinking water.

Rulemaking Authority 373.309, 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.702, 403.721 FS. History–New 8-10-95.

62-528.120 Underground Injection Control: Scope.

(1) Chapter 62-528, F.A.C., covers all injection wells defined in subsection 62-528.300(1), F.A.C., as Class I, III, IV or V wells.

(2) Injection wells defined as Class II wells in subsection 62-528.300(1), F.A.C., are not included in this chapter. Class II wells are regulated by the Florida Geological Survey under Chapter 377, F.S., and Chapters 62C-26 through 62C-30, F.A.C.

(3) Specific inclusions. The following wells are included among those types of injection activities that are covered by this chapter. This list is not intended to be exclusive but is for clarification only.

(a) Any injection well other than a Class II well located on a drilling platform inside Florida's territorial waters.

(b) Any dug hole or well that is deeper than its largest surface dimension, where a principal function of the hole is emplacement of fluids.

(c) Any well used by generators of hazardous waste, or by owners or operators of hazardous waste management facilities, to dispose of fluids containing hazardous waste. This includes the disposal of hazardous waste into what would otherwise be septic systems and cesspools, regardless of their capacity.

(d) Any septic tank, cesspool, or other well used by a multiple dwelling, community, or regional system for the injection of wastes.

(4) Specific exclusions. The following are not covered by this chapter:

(a) Injection wells located on a drilling platform or other site that is beyond Florida's territorial waters.

(b) Any individual or single family domestic waste residential septic system or non-residential septic system receiving only domestic wastewater which has the capacity to serve fewer than twenty persons per day, and which is regulated under Chapter 64E-6, F.A.C.

(c) Any system, other than an injection well, permitted under Parts II, III, IV, or V of Chapter 62-610, F.A.C.

(d) Any dug hole, drilled hole, or bored shaft that is not used for the subsurface emplacement of fluids.

(e) Any well used in conjunction with the operation of an earth-coupled heat pump system as defined in subsection 62-528.200(20), F.A.C.

Rulemaking Authority 373.309, 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.702, 403.721 FS. History–New 8-10-95, Amended 11-20-02.

62-528.200 Underground Injection Control: Definitions.

When used in this chapter, the following words shall have the indicated meanings unless the context clearly indicates otherwise:

(1) "Abandoned well" means a well the use of which has been permanently discontinued or which is in a state of disrepair such that it cannot be used for its intended purpose or for observation purposes.

(2) "Acidizing" means the injection of acid through the borehole or "well" into a "formation" to increase permeability and porosity.

(3) "Allowable stress" means the allowable stress for a material is the maximum stress that may be safely applied, which equals the yield-point stress divided by an appropriate factor of safety.

(4) "Annular monitor well" means any pipe or tubing which is permanently placed in the annulus of an injection well to monitor a discrete zone.

(5) "Annulus" or "Annular space" means any artificially created void existing between a well casing or liner pipe and a borehole wall or between two casings or between tubing and casing or liner pipe.

(6) "Aquifer" means a geological formation, group of formations or part of a formation that is capable of yielding a significant amount of water to a well or spring.

(7) "Area of review" means the area surrounding an "injection well" described according to the criteria set forth in subsection 62-528.300(4), F.A.C., or in the case of a well field permit, the project area plus a circumscribing area with a fixed width of not less than one mile.

(8) "Casing" means a pipe or tubing of appropriate material, of varying diameter and weight, lowered into a borehole during or after drilling in order to support the sides of the hole and thus prevent the walls from caving, to prevent loss of drilling mud into porous ground, or to prevent water, gas, or other fluid from entering or leaving the hole.

(9) "Catastrophic collapse" means the sudden and utter failure of adjacent or overlying strata which has been caused by removal of underlying materials.

(10) "Cementing" means the operation whereby a cement slurry is pumped into a drilled hole or forced behind the casing.

(11) "Centralizer" means a casing accessory used to properly align a casing within the open hole, or to properly align one casing within another casing, or to properly align a tubing within a casing.

(12) "Cesspool" means a "drywell" that receives untreated sanitary waste containing human excreta, and which sometimes has an open bottom and perforated sides.

(13) "Cluster well" means a well where two or more monitor tubes of different lengths are placed within a single borehole to monitor two or more discrete zones.

(14) "Confining bed" means a layer of impermeable or distinctly less permeable material stratigraphically adjacent to one or more aquifers.

(15) "Confining zone" means a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement from an injection zone.

(16) "Contaminant" means any substance which is harmful to plant, animal or human life.

(17) "Conventional mine" means an open pit or underground excavation for the production of minerals.

(18) "Department" means the Department of Environmental Protection or its successor agency or agencies.

(19) "Disposal well" means a well used for the disposal of waste into a subsurface stratum.

(20) "Drywell" means a well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids.

(21) "Earth-coupled heat pump system" means any space heating/cooling system in which fluid is circulated through a continuous section of buried pipe such that the earth is utilized as a thermal exchange medium, but no fluid is either extracted from or injected into any underground formation.

(22) "Emergency disposal method" is an effluent disposal method that, after prior Department approval and receipt of all appropriate authorizations or permits, is available for short term discharges under emergency conditions when the primary disposal method is inoperable.

(23) "Exempted aquifer" means an aquifer or its portion that meets the criteria in the definition of "underground source of drinking water" but which has been exempted according to the procedures of subsection 62-528.300(3), F.A.C.

(24) "Experimental technology" means a technology which has not been proven feasible under the conditions in which it is being tested.

(25) "Exploratory pilot hole" means a hole drilled for the purpose of obtaining subsurface information or as a guide for the drill bit to follow when drilling the final hole.

(26) "Exploratory well" means a cased well drilled in an area in which there is limited hydrologic and geologic data, to obtain sufficient data to determine feasibility of using an injection well at the site.

(27) "Facility or activity" means any installation as defined by Section 403.031(4), F.S., that is subject to regulation under the Underground Injection Control Program. These terms shall include federal facilities and activities.

(28) "Factor of safety" means the ultimate load divided by the safe load, or the ultimate strength divided by the allowable stress.

(29) "Fault" means a surface or zone of rock fracture along which there has been displacement.

(30) "Flow rate" means the volume per unit time of the flow of fluids which emerge from an orifice, pump, turbine or which pass along a conduit or channel.

(31) "Fluid" means material or substance which flows or moves, whether in a semisolid, liquid, sludge, gas, or any other form or state.

(32) "Formation" means a body of rock characterized by a degree of lithologic homogeneity or similarity which is prevailingly, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

(33) "Formation fluid" means fluid present in a formation under natural conditions as opposed to introduced fluids, such as drilling mud, injected fluids or dilute products of injected fluids.

(34) "Ground water" means water below the land surface in a zone wherein all of the interstices are filled with water.

(35) "Hazardous waste" means a hazardous waste as defined in Rule 62-730.030, F.A.C.

(36) "Hydrogeology" means the branch of hydrology that deals with ground water, its occurrence and movements, its replenishment and depletion, the properties of rocks that control the ground water movement and storage, and the methods of investigation and use of ground water.

(37) "Improved sinkhole" means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings that has been modified by humans for the purpose of directing and emplacing fluids into the subsurface.

(38) "Injection pressure" means the pressure required to inject fluid, as measured at the wellhead.

(39) "Injection well" means a well into which fluids are being or will be injected, by gravity flow or under pressure.

(40) "Injection well system" means that portion of the disposal system from the effluent side or pressure side of the injection pump to the bottom of the injection well.

(41) "Injection zone" means a geological formation, group of formations, or part of a formation receiving fluids directly through a well.

(42) "Lithology" means the description of rocks on the basis of their physical and chemical characteristics.

(43) "Major Class V well" means any Class V, Group 3 well used to inject fluids into or above the lowermost formation containing, within one-quarter mile of the well bore, an underground source of drinking water, any Class V, Group 1 well used to inject fluids through an open loop system or containing additives, or any Class V, Group 2, 4, 5, 7, 8, or 9 well as defined in paragraph 62-528.300(1)(e), F.A.C., except swimming pool drainage wells.

(44) "Multihorizon monitor well" means any well which is used to monitor in each of two or more discrete zones.

(45) "Municipal injection well" means an injection well, publicly or privately owned, which is used to inject only fluids that have passed through the head of a permitted domestic wastewater treatment facility and received at least secondary treatment pursuant to Rule 62-600.420, F.A.C.

(46) "New injection well" means a well for which a final construction permit has been issued by the Department and which began injection after April 1, 1982.

(47) "On-site monitor well" means a well associated with an injection well or facility, that is used primarily to monitor fluid movement adjacent to the wellbore or to monitor the effectiveness of the confining beds overlying the injection zone.

(48) "Overdrill" means the amount by which the nominal diameter of the open hole exceeds the diameter of the casing to be set in the hole.

(49) "Owner" means the person, entity, or corporation with legal title to the property on which an injection well exists.

(50) "Packer" means a device lowered into a well to produce a fluid-tight seal.

(51) "Permittee" means the person or entity to which a permit for an injection well or injection well system is issued by the Department. Upon transfer of ownership of the facility, the permittee shall comply with Rule 62-4.120, F.A.C.

(52) "Plugging" means the act or process of stopping the flow of water, oil, or gas into or out of a formation through a borehole or well penetrating that formation.

(53) "Point of injection" means the last accessible sampling point prior to waste fluids being released into the subsurface environment through a Class V injection well. For example, the point of injection of a Class V septic system might be the distribution box, which is the last accessible sampling point before the waste fluids drain into the underlying soils. For a drywell, it is likely to be the well bore itself.

(54) "Radioactive waste" means any waste which contains radioactive material in concentrations which exceed those listed in 10 C.F.R. pt. 20, Appendix B, Table II, Column 2 (1994).

(55) "Regional monitor well" means a well used primarily to monitor the distant effects of injection from one or more injection facilities.

(56) "Sanitary waste" means liquid or solid wastes originating solely from humans and human activities, such as wastes collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for food preparation, clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses, and utensils are cleaned. Sources of these wastes include single or multiple residences, hotels and motels, restaurants, bunkhouses, schools, ranger stations, crew quarters, guard stations, campgrounds, picnic grounds, day-use recreation areas, other commercial facilities, and industrial

facilities provided the waste is not mixed with industrial waste.

(57) "Satellite monitor well" means a well associated with an injection facility that is used primarily to monitor the effects of injection from a single injection well or facility.

(58) "Secretary" means the Secretary of the Department of Environmental Protection.

(59) "Septic system" means a "well" that is used to emplace sanitary waste below the surface and is typically comprised of a septic tank and subsurface fluid distribution system or disposal system.

(60) "Subsidence" means the lowering of the natural land surface in response to: earth movements; lowering of fluid pressure; removal of underlying supporting material by mining or solution of solids, either artificially or from natural causes; compaction due to wetting (hydrocompaction); oxidation of organic matter in soils; or added load on the land surface.

(61) "Subsurface fluid distribution system" means an assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground.

(62) "Surface casing" means the first string of well casing to be installed in the well.

(63) "Technical Advisory Committee" means a group of professionals knowledgeable in underground injection control requirements, geology, ground water hydrology, well drilling, geophysical logging, and pollution control, assembled for the purposes of advising the permitting authority on underground injection projects. The composition of the Technical Advisory Committee is specified in subsection 62-528.100(2), F.A.C.

(64) "Test injection well" means the first injection well constructed in a well field, which is used for specific formation testing and to verify the feasibility of the injection well system. This well is designed and constructed to be used as an injection well, if injection is proven feasible and environmentally acceptable.

(65) "Tubing" means piping material placed inside the final string of casing to protect the casing and to convey the injected fluid to the injection zone.

(66) "Underground source of drinking water" means an "aquifer" or its portion:

(a) Which supplies drinking water for human consumption, is classified by subsection 62-520.410(1), F.A.C., as Class F-I, G-I or G-II ground water, or contains a total dissolved solids concentration of less than 10,000 mg/L; and

(b) Which is not an "exempted aquifer."

(67) "Well" means a bored, drilled or driven shaft, or a dug hole, which has a depth greater than the diameter of the largest surface dimension; or, an improved sinkhole; or, a subsurface fluid distribution system.

(68) "Well casing" means a metallic or non-metallic pipe installed in a borehole to prevent caving, provide structural strength, seal off subsurface zones, or prevent the interchange of waters between aquifers.

(69) "Well injection" means the subsurface emplacement of fluids through a well by gravity flow or under pressure.

(70) "Well log" means a record obtained from a well that provides data on the formations penetrated or well construction.

(71) "Well monitoring" means the measurement, by on-site instruments or laboratory methods, of the physical, chemical, or biological parameters required to evaluate the performance of an injection well system.

(72) "Well plug" means a watertight and gastight seal installed in a borehole or well to prevent movement of fluids.

(73) "Well record" means a concise statement of the available data regarding a well.

(74) "Well stimulation" means any of several processes used to clean the well bore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for injected fluids to move more readily into the formation, and includes surging, jetting, blasting, acidizing, and hydraulic fracturing, or other method approved by the Department. The approval process is described in subsection 62-528.100(2), F.A.C.

Rulemaking Authority 373.309, 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 373.308, 403.021, 403.031, 403.061, 403.062, 403.087, 403.702, 403.721 FS. History–New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.12, 17-28.120, 62-28.120, Amended 8-10-95, 6-24-97, 11-20-02, 10-9-08.

62-528.300 Underground Injection Control: General Provisions.

(1) Classification of Injection Wells. Injection wells are classified as follows:

(a) Class I.

1. Wells used by generators of hazardous wastes or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.

2. Other industrial and municipal (publicly or privately owned) disposal wells which inject fluids beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.

3. Radioactive waste disposal wells that inject fluids below the lowermost formation containing an underground source of drinking water within one-quarter mile of the well bore.

(b) Class II. Wells which inject fluids:

1. Which are brought to the surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection.

2. For enhanced recovery of oil or natural gas; and

3. For storage of hydrocarbons which are liquid at standard temperature and pressure.

(c) Class III. Wells which inject for extraction of minerals, including:

1. Mining of sulfur by the Frasch process;

2. Solution mining of minerals: (Note – Solution mining of minerals includes sodium chloride, potash, phosphate, copper, uranium and any other mineral which can be mined by this process).

(d) Class IV. Wells used by generators of hazardous wastes or of radioactive wastes, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous wastes or radioactive wastes:

1. Into or above a formation which, within one quarter mile of the well, contains either an underground source of drinking water, or an exempted aquifer, or

2. Which cannot be classified as a Class I well under paragraph 62-528.300(1)(a), F.A.C., or as a Class IV well under subparagraph 1. above.

(e) Class V. Only injection wells not included in Class I, II, III, or IV are Class V wells, which are grouped together for the purpose of permitting:

1. Group 1 – Thermal Exchange Process Wells.

a. Air conditioning return flow wells used to return to any aquifer the water used for heating or cooling. An air conditioning supply well, heat pump, and return flow well used to inject water into the same permeable zone from which it was withdrawn constitute a closed-loop system;

b. Cooling water return flow wells used to inject water previously used for cooling;

2. Group 2 – Aquifer Recharge Wells.

a. Recharge wells used to replenish, augment, or store water in an aquifer;

b. Salt water intrusion barrier wells used to inject water into a fresh water aquifer to prevent the intrusion of salt water into the fresh water;

c. Subsidence control wells (not used for the purpose of oil or natural gas production) used to inject fluids into a zone which does not produce oil or gas to reduce or eliminate subsidence associated with the overdraft of fresh water;

d. Connector wells used to connect two aquifers to allow interchange of water between those aquifers;

3. Group 3 – Domestic Wastewater Wells.

a. Wells which are part of domestic wastewater treatment systems excluding wells which are defined as Class I wells under subparagraph 62-528.300(1)(a)2., F.A.C., used to discharge effluent or reclaimed water from domestic wastewater treatment facilities;

b. Septic system wells used to inject the waste from a multiple dwelling, business establishment, community, or regional business establishment septic tank. This chapter does not apply to individual or single family domestic waste residential septic systems nor to non-residential septic systems receiving only domestic wastewater which have the capacity to serve fewer than twenty persons per day, and which are regulated under Chapter 64E-6, F.A.C. Septic system wells receiving nondomestic wastewater shall be considered as Group 4 wells;

4. Group 4 – Nondomestic Wastewater Wells.

a. Dry wells used for the injection of wastes into a subsurface formation;

b. Injection wells associated with an aquifer remediation project;

c. Wells other than Class I or Class IV used to inject radioactive waste, provided the concentrations of the waste do not exceed drinking water standards contained in Chapter 62-550, F.A.C.;

d. Desalination process concentrate wells;

5. Group 5 – Mining or Mineral Extraction Wells.

a. Wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts;

b. Sand backfill wells used to inject a mixture of water and sand, tailings or other solids into mined out portions of subsurface mines;

c. Injection wells used for in situ recovery of phosphate, uraniferous sandstone, clay, sand, and other minerals extracted by the borehole slurry mining method;

6. Group 6 – Stormwater Wells. Wells used to drain surface fluid, primarily storm run-off or for lake level control, into a subsurface formation;

7. Group 7 – Aquifer Storage and Recovery System Wells. Wells associated with an aquifer storage and recovery facility where surface water or ground water is injected and stored for later recovery for potable or nonpotable use. Wells used to store and recover effluent or reclaimed water from a domestic wastewater treatment plant shall be permitted as Group 3 wells.

8. Group 8 – Class V Wells Regulated Under Additional Federal Requirements.

a. Large capacity cesspools including multiple dwelling, community or regional cesspools, or other devices that receive sanitary wastes, containing human excreta, which have an open bottom and sometimes perforated sides. The UIC requirements do not apply to single family residential cesspools nor to non-residential cesspools that receive solely sanitary waste and have the capacity to serve fewer than 20 persons a day;

b. Motor vehicle waste disposal wells that receive or have received fluids from vehicular repair or maintenance activities, such as an auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shop (e.g., transmission and muffler repair shop), or any facility that does any vehicular repair work. Fluids disposed in these wells may contain organic and inorganic chemicals in concentrations that exceed the maximum contaminant levels (MCLs) established by the primary drinking water regulations (see 40 CFR part 142). These fluids also may include waste petroleum products and may contain contaminants, such as heavy metals and volatile organic compounds, which pose risks to human health;

9. Group 9 – Other Class V Wells.

a. Exploratory wells;

b. Injection wells associated with the recovery of geothermal energy for heating, aquaculture and production of electric power;

c. Swimming pool drainage wells;

d. Injection wells used in experimental technologies; and

e. Other wells.

(2) Identification of Underground Sources of Drinking Water. The Department will identify by narrative description, illustrations, maps, and other means and shall protect, except where exempted under subsection 62-528.300(3), F.A.C., as an underground source of drinking water, all aquifers or parts of aquifers which meet the definition of an "underground source of drinking water" in subsection 62-528.200(66), F.A.C. Even if an aquifer has not been specifically identified by the Department, it is an underground source of drinking water if it meets the definition in subsection 62-528.200(66), F.A.C., and the criteria in subsection 62-520.410(1), F.A.C.

(3) Identification of and Criteria for Exempted Aquifers.

(a) After notice and opportunity for a public hearing as provided by Rules 62-528.315 through 62-528.330, F.A.C., the Department shall identify (by narrative description, illustrations, maps, or other means) and describe in geographic or geometric terms (such as vertical and lateral limits and gradient) which are clear and definite, all aquifers or parts thereof which the Department proposes to designate as exempted aquifers using the criteria in paragraph (c) below. No such designation shall be final until approved by the United States Environmental Protection Agency as part of the State program.

(b) Subsequent to program approval, the Department may, after notice and opportunity for a public hearing, identify additional exempted aquifers. Exemption of aquifers identified under subparagraph (c)2. below are considered major aquifer exemptions and shall be treated as a program revision subject to the provisions of 40 C.F.R. pt. 145.32 (1994) and requiring public notice in the Federal Register. Exemption of aquifers identified under subparagraph (c)3. below are considered minor aquifer exemptions and shall become final if the Department submits the exemption in writing to the Environmental Protection Agency Administrator, or an authorized delegatee, and the Administrator, or an authorized delegatee, has not disapproved the designation within 45 days. Any disapproval by the Administrator shall state the reasons and shall constitute final Environmental Protection Agency action for

purposes of judicial review.

(c) To be an exempted aquifer, an aquifer or a portion thereof which meets the criteria for an "underground source of drinking water" in paragraph 62-528.200(66)(a), F.A.C., shall meet the following criteria:

1. It does not currently serve as a source of drinking water; and

2. It cannot now and will not in the future serve as a source of drinking water because:

a. It is mineral, hydrocarbon, or geothermal energy producing, or can be demonstrated by a permit applicant for a Class III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible;

b. It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical;

c. It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or

d. It is located over a Class III well mining area subject to subsidence or catastrophic collapse, or

3. The total dissolved solids content of the ground water is more than 3,000 and less than 10,000 mg/L and it is not reasonably expected to be or become a supply of drinking water; and

4. Has satisfied the following requirements in accordance with paragraph (b) above:

a. A major aquifer exemption has been approved by the Environmental Protection Agency; or

b. A minor aquifer exemption has not been disapproved by the Environmental Protection Agency.

(d) For Class III wells, the Department shall require an applicant for a permit which necessitates an aquifer exemption under sub-subparagraph (c)2.a. above to furnish the data necessary to demonstrate that the aquifer is expected to be mineral or hydrocarbon producing. Information contained in the mining plan for the proposed project, such as a map and general description of the mining zone, general information on the mineralogy and geochemistry of the mining zone, analysis of the amenability of the mining zone to the proposed mining method, and a timetable of planned development of the mining zone shall be considered by the Department in addition to the information required by subsection 62-528.450(2), F.A.C. Approval of the aquifer exemption shall be treated as a program revision.

(e) No aquifer exemption request shall be processed until the Department has received the appropriate fee as specified in subparagraph 62-4.050(4)(o)5. or 6., F.A.C.

(4) Area of Review.

(a) An area of review, which shall apply to each Class I and Class III well, well field, project or area of the State, and for a Class V injection well when required, shall be determined by the applicant in a manner that shall take into account the zone of endangering influence, which is the lateral area in which the buoyant forces or increased pressures in the injection zone may cause the migration of the injected or formation fluid into an underground source of drinking water. The area of review is the land surface overlying the zone of endangering influence.

(b) In determining the area of review, the information to be used shall include chemical, physical, and biological characteristics of the injection fluids and formation fluids; hydrogeology; appropriate mathematical models, if available, for computing pressure and concentration changes in the injection zone as a function of distance and time; population; ground water use and dependence; and historical practices in the area. A radius around the injection well of one mile, or two miles for a hazardous waste well, shall be a minimum. In the case of an application for a well field project, a fixed width of not less than one mile for the circumscribing area shall be a minimum.

(5) Corrective Action.

(a) Coverage. Applicants for Class I or Class III injection well permits shall identify, and for any Class V well permit when required by the Department shall identify, the location of all known wells within the area of review for that injection well which penetrate the injection zone or confining zone. For such wells which are in use or improperly sealed, completed, or abandoned, the applicant shall also submit a plan specifying plugging and abandonment, pressure limitations, or such actions or modifications as are necessary to prevent movement of fluid into underground sources of drinking water ("corrective action"). Where the plan is adequate, the Department shall incorporate it into the permit as a condition. Where the Department's review of an application indicates that the applicant's plan is inadequate (based on the factors in paragraph (b) below) the Department shall require the applicant to revise the plan, prescribe a plan for corrective action as a condition of the permit under paragraph (b) below, or deny the application. In no case shall the Department issue a permit without incorporating a plan for corrective action in such permit when

such corrective action is required by this subsection.

(b) Criteria and Factors. In determining the adequacy of corrective action proposed by the application under paragraph (a) of this subsection and in determining the additional steps needed to prevent fluid movement into underground sources of drinking water, the following criteria and factors shall be considered by the Department:

1. Nature, volume, and injection rate of the injected fluid;
2. Nature of native fluids, or by-products of injection;
3. Potentially affected population;
4. Geology;
5. Hydrology;
6. History of the injection operation;
7. Completion and plugging records for all wells;
8. Abandonment procedures in effect at the time the well was abandoned;
9. Hydraulic connections with underground sources of drinking water;
10. Life of injection well; and
11. Pressure considerations.

(c) Requirements.

1. Existing Injection Wells. Any permit issued for an existing injection well requiring corrective action shall include a compliance schedule requiring any corrective action accepted or prescribed under paragraph (a) of this subsection. In addition, schedules of compliance shall require compliance as soon as possible, but not later than three years after the effective date of the permit.

2. New Injection Wells. No owner or operator of a new injection well shall begin injection until all required corrective action has been completed. The Department shall not authorize construction of a new injection well prior to the completion of all required action unless the applicant can affirmatively demonstrate that such construction will not pose a threat to the quality of the waters of the State. However, operational testing pursuant to subsection 62-528.450(3), F.A.C., shall not be authorized until all corrective action has been completed.

3. If needed to prevent fluid movement into an underground source of drinking water, the Department shall require as a permit condition that injection pressure be so limited that pressure in the injection zone at the site of any improperly completed or abandoned well in the area of review does not exceed a pressure which could cause fluid movement into an underground source of drinking water. This pressure limitation shall satisfy the corrective action requirement. Alternatively, such injection pressure limitation can be part of a compliance schedule and last until all other corrective action has been taken. The Department shall consider alternative methods of control which prevent fluid movement into underground sources of drinking water through wells which are improperly sealed, completed or abandoned within the area of review.

4. Class III Wells Only. When setting corrective action requirements, the Department shall consider the overall effect of the project on the hydraulic gradient in potentially affected underground sources of drinking water, and the corresponding changes in potentiometric surface(s) and flow direction(s) rather than the discrete effect of each well. If a decision is made that corrective action is not necessarily based on the determinations above, the monitoring program required in subsection 62-528.425(2), F.A.C., shall be designed to verify the validity of such determinations.

(6) Mechanical Integrity.

(a) An injection well has mechanical integrity if:

1. There is no leak in the casing, tubing or packer; and

2. There is no fluid movement into an underground source of drinking water through channels adjacent to the injection well bore.

(b) One of the following tests shall be used to evaluate the absence of leaks under subparagraph (a)1. of this subsection.

1. Monitoring of the tubing-casing annulus pressure with sufficient frequency to be representative, as determined by the Department, while maintaining an annulus pressure different from atmospheric pressure measured at the surface, after an initial pressure test pursuant to subparagraph 2. and paragraph (e) of this subsection; or

2. Pressure test of inner casing or tubing.

(c) The following methods shall be used to determine the absence of fluid movement under subparagraph (a)2. A temperature or noise log, and a radioactive tracer survey. The radioactive tracer survey shall not be required by the Department if such testing may

pose a threat to an underground source of drinking water.

(d) The Department shall allow the use of a test to demonstrate mechanical integrity, other than those listed in paragraphs (b) and (c) above, with the written approval of the United States Environmental Protection Agency. (The permittee proposes the alternative to the Department, and the Department seeks the approval from EPA.) If the Environmental Protection Agency has published in the Federal Register an alternative mechanical integrity test method, only written Department approval shall be required before conducting alternative mechanical integrity tests to those specified in paragraphs (b) and (c) above. The Department approval process is described in subsection 62-528.100(2), F.A.C.

(e) A pressure test required under paragraph (b) above shall be conducted with a liquid at a minimum pressure of 1.5 times the maximum pressure at which the well is to be permitted, or 50 PSI, whichever is higher, for at least one hour. Internal mechanical integrity under subparagraph (a)1. above is demonstrated if there is no more than a five-percent pressure change over the one-hour test period. The pressure used to test wells constructed using tubing and packer shall not exceed the design specifications of the tubing or packer.

(f) In conducting and evaluating the tests enumerated in this rule or others to be allowed by the Department, the permittee and the Department shall apply methods and standards generally accepted in the industry. When the permittee reports the results of mechanical integrity tests to the Department, a description of the test(s), method(s) used, and interpretation of the results shall be included. In making the evaluation, the Department shall review monitoring and other test data submitted since the previous evaluation.

(g) The Department shall require additional or alternative mechanical integrity tests in accordance with 40 C.F.R. § 146.8(f) (1996).

(h) A permit for any Class I or III well or injection project which lacks mechanical integrity shall include, and for any Class V well may include, a condition prohibiting injection operations until the permittee affirmatively demonstrates under paragraphs 62-528.300(6)(a)-(c), F.A.C., that the well has mechanical integrity, or the permittee affirmatively demonstrates that there is no movement of fluid into or between underground sources of drinking water.

(7) Confidential Information. In addition to the provision in Section 403.111, F.S., claims of confidentiality for the following information shall be denied:

(a) The name and address of any permit applicant or permittee, and

(b) Information which deals with the existence, absence, or level of contamination in drinking water.

(8) Quality Assurance/Quality Control.

(a) All water quality sampling and analyses associated with Class I, Class III, and Class IV injection wells shall be in accordance with a current Department approved quality assurance plan under Rule 62-160.210 and paragraphs 62-160.300(7)(g) through (k), F.A.C.

(b) All Class V injection wells requiring water quality analyses to be performed shall be in accordance with a current Department approved comprehensive quality assurance plan under Rule 62-160.210 and subsection 62-160.300(6), F.A.C.

(9) Reuse Requirements.

(a) This subsection applies only to those Class I municipal wells located within, serving a population within, or associated with a domestic wastewater treatment facility located within a water resource caution area as described in Chapter 62-40, F.A.C.

(b) If, after conducting a reuse feasibility study under Section 403.064(2), F.S., a permit applicant determines that the reuse of reclaimed water is feasible, the permittee shall implement reuse according to the schedule for implementation contained in the study conducted under Section 403.064, F.S., to the degree that reuse is determined to be feasible.

(c) Nothing in this paragraph shall limit the use of a Class I municipal injection well as backup for a reclaimed water reuse system.

Rulemaking Authority 373.309, 403.061, 403.087, 403.721 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.064, 403.087, 403.088, 403.161, 403.702, 403.721 FS. History–New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.13, Amended 8-30-88, Formerly 17-28.130, 62-28.130, Amended 8-10-95, 6-24-97, 11-20-02.

62-528.305 Underground Injection Control: Permit Processing.

The time frames in Rule 62-4.055, F.A.C., shall apply to underground injection control permits. However, the failure of the Department to approve or deny a permit for an underground injection well within the 90-day time period shall not result in the automatic approval or denial of the permit and shall not prevent the inclusion of specific permit conditions which are necessary to

ensure compliance with applicable statutes or rules. If the Department fails to approve or deny such a permit within the 90-day period, the applicant may petition for a writ of mandamus to compel the Department to act consistently with applicable regulatory requirements.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.0876 FS. History–New 12-3-84, Formerly 17-28.14, 17-28.140, 62-28.140, Amended 8-10-95.

62-528.307 Underground Injection Control: General Conditions for Permits.

The following general conditions shall be included in each of the respective types of underground injection control permits.

(1) All UIC Permits.

(a) The terms, conditions, requirements, limitations and restrictions set forth in this permit are "permit conditions" and are binding and enforceable pursuant to Section 403.141, F.S.

(b) This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action.

(c) As provided in Section 403.087(7), F.S., the issuance of this permit does not convey any vested rights or exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

(d) This permit conveys no title to land, water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

(e) This permit does not relieve the permittee from liability for harm to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefrom; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

(f) The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, or are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

(g) The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

1. Have access to and copy any records that must be kept under conditions of this permit;

2. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

3. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time will depend on the nature of the concern being investigated.

(h) If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

1. A description of and cause of noncompliance; and

2. The period of noncompliance, including dates and times; or, if not corrected the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent the recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

(i) In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

(j) The permittee agrees to comply with changes in Department Rules and Florida Statutes after a reasonable time for

compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department Rules.

(k) This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-528.350, F.A.C. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

(l) This permit or a copy thereof shall be kept at the work site of the permitted activity.

(m) The permittee shall comply with the following:

1. Upon request, the permittee shall furnish all records and plans required under Department Rules. During enforcement actions, the retention period for all records shall be extended automatically unless the Department determines that the records are no longer required.

2. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department Rule.

3. Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;

b. The person responsible for performing the sampling or measurements;

c. The dates analyses were performed;

d. The person responsible for performing the analyses;

e. The analytical techniques or methods used;

f. The results of such analyses.

4. The permittee shall furnish to the Department, within the time requested in writing, any information which the Department requests to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

5. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

(n) All applications, reports, or information required by the Department shall be certified as being true, accurate, and complete.

(o) Reports of compliance or noncompliance with, or any progress reports on, requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each scheduled date.

(p) Any permit noncompliance constitutes a violation of the Safe Drinking Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(q) It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(r) The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

(s) This permit may be modified, revoked and reissued, or terminated for cause, as provided in 40 C.F.R. Sections 144.39(a), 144.40(a), and 144.41 (1998). The filing of a request by the permittee for a permit modification, revocation or reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(t) The permittee shall retain all records of all monitoring information concerning the nature and composition of injected fluid until five years after completion of any plugging and abandonment procedures specified under Rule 62-528.435, F.A.C. The permittee shall deliver the records to the Department office that issued the permit at the conclusion of the retention period unless the permittee elects to continue retention of the records.

(u) All reports and other submittals required to comply with this permit shall be signed by a person authorized under subsection 62-528.340(1) or (2), F.A.C. All reports shall contain the certification required in subsection 62-528.340(4), F.A.C.

(v) The permittee shall notify the Department as soon as possible of any planned physical alterations or additions to the permitted facility. In addition, prior approval is required for activities described in paragraph 62-528.410(1)(h), F.A.C.

(w) The permittee shall give advance notice to the Department of any planned changes in the permitted facility or injection activity which may result in noncompliance with permit requirements.

(x) The permittee shall report any noncompliance which may endanger health or the environment including:

1. Any monitoring or other information which indicates that any contaminant may cause an endangerment to an underground

source of drinking water; or

2. Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.

Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(2) All UIC Construction Permits.

(a) If injection is to continue beyond the expiration date of this permit the permittee shall apply for, and obtain an operation permit. If necessary to complete the two-year operational testing period, the permittee shall apply for renewal of the construction permit at least 60 days prior to the expiration date of this permit.

(b) Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.

(c) The injection system shall be monitored in accordance with paragraphs 62-528.425(1)(g) and subsection 62-528.430(2), F.A.C. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(d) The permittee shall submit monthly to the Department the results of all injection well and monitor well data required by this permit no later than the last day of the month immediately following the month of record. The results shall be sent to the Department of Environmental Protection, [Name] District Office, [Address]. A copy of this report shall also be sent to the Department of Environmental Protection, Underground Injection Control Program, MS 3530, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(e) Operational testing. Prior to operational testing, the permittee shall comply with the requirements of paragraphs 62-528.450(3)(a), (b) and (c), F.A.C.

(f) Mechanical Integrity.

1. Injection is prohibited until the permittee affirmatively demonstrates that the well has mechanical integrity. Prior to operational testing the permittee shall establish, and thereafter maintain the mechanical integrity of the well at all times.

2. If the Department determines that the injection well lacks mechanical integrity, written notice shall be given to the permittee.

3. Within 48 hours of receiving written notice that the well lacks mechanical integrity, unless the Department requires immediate cessation of injection, the permittee shall cease injection into the well unless the Department allows continued injection pursuant to subparagraph 4. below.

4. The Department shall allow the permittee to continue operation of a well that lacks mechanical integrity if the permittee has made a satisfactory demonstration that fluid movement into or between underground sources of drinking water is not occurring.

(3) All UIC Operation Permits.

(a) In accordance with subsection 62-4.090(1) and paragraph 62-528.455(3)(a), F.A.C., the permittee shall submit an application for permit renewal at least 60 days prior to expiration of this permit.

(b) Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.

(c) The injection system shall be monitored in accordance with paragraph 62-528.425(1)(g) and subsection 62-528.430(2), F.A.C. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(d) The permittee shall submit monthly to the Department the results of all injection well and monitor well data required by this permit no later than the last day of the month immediately following the month of record. The results shall be sent to the Department of Environmental Protection, [Name] District Office, [Address]. A copy of this report shall also be sent to the Department of Environmental Protection, Underground Injection Control Program, MS 3530, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(e) Mechanical Integrity.

1. The permittee shall maintain the mechanical integrity of the well at all times.

2. If the Department determines that the injection well lacks mechanical integrity, written notice shall be given to the permittee.

3. Within 48 hours of receiving written notice that the well lacks mechanical integrity, unless the Department requires immediate cessation of injection, the permittee shall cease injection into the well unless the Department allows continued injection

pursuant to subparagraph 4. below.

4. The Department shall allow the permittee to continue operation of a well that lacks mechanical integrity if the permittee has made a satisfactory demonstration that fluid movement into or between underground sources of drinking water is not occurring.

(4) All UIC Plugging and Abandonment Permits.

(a) The well shall be plugged and abandoned in a manner that will not allow fluid movement into or between underground sources of drinking water.

(b) In accordance with subsection 62-528.435(11), F.A.C., the permittee shall submit to the Department a plugging and abandonment report within 90 days of completion of plugging and abandonment.

Rulemaking Authority 403.061, 403.087, 403.088 FS. Law Implemented 403.061, 403.087, 403.088 FS. History–New 7-15-99.

62-528.310 Underground Injection Control: Draft Permit.

(1) Once an application for a Class I, Class III, or major Class V well is complete, the Department shall prepare a draft permit or intent to deny the permit.

(2) If the Department prepares a draft permit, it shall contain the following information:

(a) The applicable general permit conditions under Rule 62-528.307, F.A.C., and specific permit conditions under this chapter;

(b) All compliance schedules under paragraph 62-528.300(5)(c) and Rule 62-528.345, F.A.C.; and

(c) All monitoring requirements under Rule 62-528.430 or 62-528.620, F.A.C.

(3) All draft permits prepared by the Department under this section shall be accompanied by a fact sheet pursuant to Rule 62-528.335, F.A.C., and shall be based on the administrative record, shall be publicly noticed pursuant to Rule 62-528.315, F.A.C., and made available for public comment pursuant to Rule 62-528.321, F.A.C. The Department shall give notice of an opportunity for a public meeting pursuant to Rule 62-528.325, F.A.C., and respond to comments pursuant to Rule 62-528.330, F.A.C.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.0876 FS. History–New 8-10-95, Amended 7-15-99.

62-528.315 Underground Injection Control: Requirements for Public Notice.

(1) For Class I, Class III, or major Class V wells, the Department shall give public notice that the following actions have occurred:

(a) A draft permit for construction, operation, or plugging and abandonment under Rule 62-528.310, F.A.C., has been prepared.

(b) A draft consent order, or other non-procedural order which has not yet been subjected to a notice of intended agency action has been prepared.

(c) A public meeting has been scheduled pursuant to Rule 62-528.325, F.A.C.

(2) No public notice is required when a request for a permit, including modifications, revocation, reissuance or termination, is denied. Written notice of that denial shall be given to the requester and to the permittee.

(3) Public notices may describe more than one permit or permit action.

(4) Public notice of the preparation of a draft permit shall allow at least 30 days for public comment.

(5) Public notice of a public meeting shall be given at least 30 days before the meeting. Public notice of the meeting may be given at the same time as public notice of the draft permit, or the two notices may be combined.

(6) Public notice of the activities described in subsection (1) above shall be given by the following methods:

(a) By mailing a copy of the notice to the following persons (any person otherwise entitled to receive notice under this subsection may waive his or her rights to receive notice if he or she specifically waives his or her rights in response to the public notice for any classes and categories of permits; agencies listed in subparagraphs 2 through 4 below waive their right to receive notice if they specifically waive their rights in response to the Department's request to remain on the mailing list):

1. The applicant;

2. Any other agency which the Department knows has issued or is required to issue a permit under Resource Conservation and Recovery Act, National Pollutant Discharge Elimination System, Section 404 of the Clean Water Act, Prevention of Significant Deterioration (or other permit under the Clean Air Act), sludge management permit, or ocean dumping under the Marine Research Protection and Sanctuaries Act for the same facility or activity (including the U.S. Environmental Protection Agency);

3. Federal and state agencies in Florida with jurisdiction over fish, shellfish and wildlife resources, and over coastal zone management plans, the Advisory Council on Historic Preservation, State Historic Preservation officers, and any affected state

including Indian Tribes;

4. For Class I injection well permits, state and local oil and gas regulatory agencies and state agencies regulating mineral exploration and recovery;

5. Persons on a Department mailing list which is to be developed by:

a. Including those who request in writing to be on the list;

b. Soliciting persons for a Department District office list from those participants in past permit proceedings in that district;

c. Notifying the public of the opportunity to be on a mailing list through periodic publication in the public press and in such publications as regional or state funded newsletters, environmental bulletins, or state law journals. The Department shall update the mailing list from time to time by requesting written indication of continued interest from those listed.

6. The primary unit of local government having jurisdiction over the area where the facility is proposed to be located;

7. Each state agency having any authority under state law with respect to the construction or operation of such facility.

(b) A notice in a daily or weekly newspaper having general circulation within the area affected by the facility or activity; and

(c) Any other method reasonably calculated to give actual notice of the action in question to a person potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(7) All public notices issued under this section are prepared by the Department and shall at a minimum contain the following information:

(a) Name and address of the office processing the permit action for which the notice is being given;

(b) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(c) A brief description of the business conducted at the facility or activity described in the permit application or draft permit;

(d) Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, statement of basis or fact sheet, and the application; and

(e) A brief description of the comment procedures described in Rules 62-528.321 and 62-528.325, F.A.C., and the time and place of any public meeting that will be held, including a statement of procedures to request a meeting (unless a meeting has already been scheduled) and other procedures by which the public may participate in the final permit decision.

(f) Any additional information considered necessary to fulfill the purpose of the notice.

(8) Public notices for public meetings. In addition to the general public notice described in subsection (7) above, the public notice of a meeting under Rule 62-528.325, F.A.C., shall contain the following:

(a) Reference to the date of any previous public notices relating to the permit;

(b) Date, time, and place of the meeting;

(c) A brief description of the nature and purpose of the meeting, including the applicable rules and procedures.

(9) In addition to the general public notice described in subsection (7) above, all persons who receive notice under subparagraphs (6)(a)2. and 3. above shall be mailed a copy of the permit application (if any) without supporting documentation, and all persons who receive notice under subparagraphs (6)(a)1., 2., and 3. above shall be mailed a copy of the notice of draft permit (if any) by the Department.

(10) After the conclusion of the public comment period described in Rule 62-528.321, F.A.C., and after the conclusion of a public meeting (if any) described in Rule 62-528.325, F.A.C., the applicant shall publish public notice of the proposed agency action including the availability of an administrative hearing under Sections 120.569 and 120.57, F.S. This public notice shall follow the procedure described in subsection 62-110.106(7), F.A.C.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 120.60, 373.308, 403.061, 403.062 FS. History–New 8-10-95, Amended 6-24-97.

62-528.321 Public Comments and Requests for Public Meetings for Underground Injection Control.

During the public comment period provided in Rule 62-528.315, F.A.C., any interested person may submit written comments on the draft permit or the enforcement action, and may request a public meeting, if no meeting has been scheduled. A request for public meeting shall be in writing and shall state the nature of the issues proposed to be raised in the meeting. All comments shall be considered in making the final decision and shall be answered as provided in Rule 62-528.330, F.A.C.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.061, 403.062 FS. History–New 8-10-95.

62-528.325 Public Meetings for Underground Injection Control.

(1) The Department shall hold a public meeting in the area where the injection well is located whenever it finds, on the basis of requests, a significant degree of public interest in a draft permit;

(2) The Department shall also hold a public meeting in the area where the injection well is located whenever such a meeting may clarify one or more issues involved in the permit decision;

(3) Public notice of the meeting shall be given as specified in Rule 62-528.315, F.A.C.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.061, 403.062, 403.087, 403.121 FS. History–New 8-10-95.

62-528.330 Underground Injection Control: Response to Public Comment.

At the time that a final permit is issued for Class I, Class III, and major Class V wells, the Department shall issue a written response to comments and make the response available to the public. This response shall:

(1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

(2) Briefly describe and respond to all significant comments on the draft permit raised during the public comment period or any public meeting.

Rulemaking Authority 373.309, 403.087 FS. Law Implemented 373.308, 403.087 FS. History–New 8-10-95.

62-528.335 Underground Injection Control: Fact Sheet.

(1) The Department shall prepare a fact sheet for every draft permit for a Class I, Class III, or major Class V facility or activity and for every draft permit which the Department finds is the subject of widespread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. The Department shall send this fact sheet to the applicant and, on request, to any other person.

(2) The fact sheet shall include, when applicable:

(a) A brief description of the type of facility or activity which is the subject of the draft permit;

(b) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, disposed of, injected, or discharged.

(c) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record;

(d) Reasons why any requested variances or alternatives to adopted standards are or are not justified;

(e) A description of the procedures for reaching a final decision on the draft permit including:

1. The beginning and ending dates of the comment period under Rule 62-528.315, F.A.C., and the address where comments will be received;

2. Procedures for requesting a meeting and the nature of that meeting; and

3. Any other procedures by which the public may participate in the permit decision.

(f) Name and telephone number of a person to contact for additional information.

Rulemaking Authority 373.309, 403.087 FS. Law Implemented 373.308, 403.087 FS. History–New 8-10-95.

62-528.340 Signatories to Permit Applications and Reports for Underground Injection Control.

(1) Applications. All permit applications, except those submitted for Class II wells (see subsection (2) of this section), shall be signed as follows:

(a) For a corporation, by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means:

1. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

2. The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: Specific assignments or delegations of authority to responsible corporate officers identified in subparagraph 1. above is

not required. The Department will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Department to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under subparagraph 2. above rather than to specific individuals.

(b) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

(c) For a municipality, state, federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a state or federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

(2) Reports. All reports required by permits and other information requested by the Department shall be signed by a person described in subsection (1) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(a) The authorization is made in writing by a person described in subparagraph (1) of this section;

(b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(c) The written authorization is submitted to the Department.

(3) Changes to authorization. If an authorization under subsection (2) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subsection (2) of this section shall be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

(4) Certification. Any person signing a document under subsection (1) or (2) of this section shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Rulemaking Authority 373.309, 403.087 FS. Law Implemented 373.308, 403.087 FS. History–New 8-10-95, Amended 6-24-97.

62-528.345 Compliance Schedules for Underground Injection Control Permits.

(1) General. The permit shall, when appropriate, specify a schedule of compliance leading to compliance with any Department rule.

(2) Time for compliance. Any schedules of compliance shall require compliance as soon as possible, and in no case later than three years after the effective date of the permit.

(3) Interim dates. If a permit establishes a schedule of compliance which exceeds one year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(a) The time between interim dates shall not exceed one year.

(b) If the time necessary for completion of any interim requirement is more than one year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(4) Reporting. The permit shall be written to require that if subsection (3) of this section is applicable, progress reports be submitted no later than 30 days following each interim date and the final date of compliance.

Rulemaking Authority 373.309, 403.087 FS. Law Implemented 373.308, 403.087 FS. History–New 8-10-95.

62-528.350 Underground Injection Control: Transfer of Permits.

(1) Transfers by modification. Except as provided in subsection (2) of this section, a permit shall be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as are required by Department rules.

(2) Automatic transfers. As an alternative to transfers under subsection (1) of this section, any underground injection control permit for a well not injecting hazardous waste shall be automatically transferred to a new permittee if:

(a) The current permittee notifies the Department at least 30 days in advance of the proposed transfer date referred to in paragraph (b) of this subsection;

(b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer or permit responsibility, coverage, and liability between them, and the notice demonstrates that the financial responsibility requirements of subsection 62-528.435(9), F.A.C., will be met by the new permittee; and

(c) The Department does not notify the existing permittee and the proposed new permittee of the Department's intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective as of the date specified in the agreement mentioned in paragraph (b) of this subsection.

Rulemaking Authority 373.309, 403.087 FS. Law Implemented 373.308, 403.087 FS. History–New 8-10-95, Amended 6-24-97.

62-528.355 Underground Injection Control: Permit Modification, Revocation, Termination.

(1) When the Department receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit, receives a request for modification or revocation and reissuance, or conducts a review of the permit file) it will determine whether or not one or more of the causes listed in subsections (2) and (3) of this section for modification or revocation and reissuance or both exist. If cause exists, the Department shall modify or revoke and reissue the permit accordingly, subject to the limitations of subsection (4) of this section, and shall request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. If cause does not exist under this section, the Department shall not modify or revoke and reissue the permit. If a permit modification is a minor modification pursuant to subsection 62-528.355(5), F.A.C., the permit shall be modified without a draft permit or public review. Otherwise, a draft permit shall be prepared and other procedures in Rules 62-528.310 through 62-528.335, F.A.C., shall be followed.

(2) Causes for major modification. The following are causes for modification. For Class I hazardous waste injection wells or Class III wells, the following are causes for revocation and reissuance as well as modification; and for all other wells the following are causes for revocation or reissuance as well as modification when the permittee requests or agrees.

(a) Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different in or absent from the existing permit.

(b) Information. The Department has received information that was not available at the time of permit issuance (other than revised rules, guidance, or test methods) which would have justified the application of different permit conditions at the time of issuance. For multiwell permits, this cause shall include any information indicating that cumulative effects of injection on the environment are inconsistent with this chapter. Permits for Class III wells shall, if necessary to protect waters of the State, be modified during their terms for this cause even if the information was available at the time the permit was issued.

(c) New rules. The rules on which the permit was based have been changed by promulgation of new or amended rules, or by judicial decision after the permit was issued. Permits other than for Class I hazardous waste injection wells or Class III wells shall be modified during their terms for this cause only as follows:

1. For promulgation of amended rules, when:

a. The permit condition requested to be modified was based on a promulgated Chapter 62-528, F.A.C., rule; and

b. The Department has revised, withdrawn, or modified that portion of the rule on which the permit condition was based; and

c. A permittee requests modification within 90 days after publication in the Florida Administrative Weekly of the proposed revised rule upon which the request is based.

2. For judicial decisions, a court of competent jurisdiction has remanded and stayed Department promulgated rules if the remand and stay concern that portion of the rules on which the permit condition was based and a request is filed by the permittee within ninety (90) days of judicial remand.

(d) Compliance schedules. There is good cause for modification of a compliance schedule such as an act of God, strike, flood,

or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy.

(3) Causes for modification, termination, or revocation and reissuance. The following are causes to modify, terminate, or, alternatively, revoke and reissue a permit:

(a) Cause exists for termination under 40 C.F.R. pt. 144.40 (1994), and modification or revocation and reissuance is appropriate because modification or revocation and reissuance is consistent with the provisions of this chapter. Causes include:

1. Noncompliance by the permittee with any condition of the permit;

2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

3. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

(b) The Department has received notification of a proposed transfer of the permit. A permit also shall be modified to reflect a transfer after the effective date of an automatic transfer but shall not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.

(c) A determination that the waste being injected is a hazardous waste as defined in Rule 62-730.030, F.A.C., either because the definition has been revised, or because a previous determination has been changed.

(4) Facility siting. Suitability of the facility location shall not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.

(5) Minor modifications of permits. Upon the consent of the permittee and the concurrence of the Department, a permit shall be modified to make the corrections or allowances for changes in the permitted activity listed in this paragraph, without following the procedures of Rules 62-528.310 through 62-528.335, and 62-528.355, F.A.C. Minor modifications shall only:

(a) Correct typographical errors;

(b) Require more frequent monitoring or reporting by the permittee;

(c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

(d) Allow for a change in ownership or operational control of a facility when no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Department;

(e) Change quantities or types of fluids injected which are within the capacity of the facility as permitted and would not interfere with the operation of the facility or its ability to meet conditions described in the permit and would not change its classification;

(f) Allow minor changes to construction requirements provided that any such alteration complies with the requirements of this chapter; or

(g) Amend a plugging and abandonment plan which has been updated.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.087 FS. History–New 8-10-95, Amended 6-24-97.

62-528.360 Prohibition of Hazardous Waste Injection.

Rulemaking Authority 373.309, 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.161, 403.721, 403.7222, 403.727 FS. History–New 8-10-95, Repealed 2-16-12.

62-528.400 General Prohibition of Hazardous Waste Injection.

(1) The injection of hazardous waste through any well or septic system is prohibited except for those Class I wells permitted to inject hazardous waste as of January 1, 1992, or as provided in paragraph (2) below.

(2) If a waste being injected into a Class I well is subsequently determined to be a hazardous waste because the definition of a hazardous waste in Chapter 62-730, F.A.C., has been revised, the Department shall initiate modification procedures under Rule 62-4.080, F.A.C., and the permittee shall cease injection into the well upon modification of the permit, unless the waste has been rendered non-hazardous prior to injection. However, if state or federal law or regulation otherwise prohibits continued injection, the Department shall revoke the permit. The conditions of paragraphs (a) through (c) below shall be met during the interim period before the permit in effect expires:

(a) The fluid injected shall not exceed the volume permitted on the date that the waste was determined to be hazardous;

(b) The acidity or alkalinity of the waste stream as measured by pH shall not exceed the limits permitted on the date the injection fluid was determined to be a hazardous waste; and

(c) Concentrations of hazardous constituents in the waste stream shall not increase over those levels permitted on the date the injection fluid was determined to be a hazardous waste. If the concentrations of hazardous constituents are not specified in the permit, the allowable concentration shall be specified by the Department, as described in subsection 62-528.100(2), F.A.C., based on those concentrations present in the waste stream prior to the date the injection fluid was determined to be a hazardous waste.

(3) All hazardous waste injection wells permitted by the Department under the provisions of subsections (1) or (2) above shall be regulated by the Department in accordance with, and maintain compliance with, the provisions of 40 C.F.R. pt. 146, Subpart G (1994), "Criteria and Standards Applicable to Class I Hazardous Waste Wells" and shall be regulated by the U.S. EPA in accordance with 40 C.F.R. pt. 148 (1994), "Hazardous Waste Injection Restrictions." When applicable, the requirements of 40 C.F.R. pt. 144.14 (1994) shall also apply.

(4) No permit shall be renewed or the expiration date extended for any well permitted to receive hazardous waste under the provisions of subsection (2) above unless the waste has been rendered non-hazardous prior to injection.

(5) For each facility permitted under the provisions of subsection (2) above, the permittee shall submit a plan which describes the following:

(a) The process by which the waste will be rendered non-hazardous; or

(b) The alternative disposal method which is to be used in lieu of injection and the method which is to be used to properly plug and abandon the injection well pursuant to Rule 62-528.435, F.A.C.

(6) The permittee shall submit the plan required by subsection (5) above to the Department within 180 days of the date that the injection fluid was determined to be a hazardous waste.

Rulemaking Authority 373.309, 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.161, 403.702, 403.721, 403.7222 FS. History–New 5-8-85, Formerly 17-28.20, Amended 4-27-89, Formerly 17-28.200, 62-28.200, Amended 8-10-95, 6-24-97.

62-528.405 Evaluation of Geologic and Hydrologic Environment for Class I and III Wells.

(1) General.

(a) Class I Wells. An applicant for an injection well shall demonstrate that the hydrogeologic environment is suitable for waste injection as provided in paragraph 62-528.440(2)(c), F.A.C., and without modifying the ambient water quality of other aquifers overlying the injection zone. In the Class I well construction permit application, the applicant shall address the proposed testing and sampling procedures for adequately defining the depth at which total dissolved solids exceed 10,000 mg/L in formation waters. An assessment of the lateral position at which total dissolved solids exceed 10,000 mg/L in the injection zone waters shall also be provided. The Department shall, when necessary to protect underground sources of drinking water, request that the applicant provide, in addition to site-specific and area of review information, regional information that will allow prediction of the regional impact of the proposed injection well.

(b) Class III Wells.

1. The Department shall evaluate each proposed mining operation for potential effects of the mining activity on the underground sources of drinking water. The Department shall, at a minimum, consider the effects of depressurization of the aquifer on the water quality of any underground source of drinking water. An applicant for a Class III injection well project shall demonstrate that the hydrogeologic environment is suitable for injection for extraction of minerals or energy without endangering the underground sources of drinking water.

2. No Class III mining activity shall be allowed in an underground source of drinking water, or shall result in a violation of ground water standards. If the proposed mining activity is in an underground source of drinking water, an aquifer exemption pursuant to subsection 62-528.300(3), F.A.C., shall be obtained prior to the well being placed into operation.

(2) Confining Zone.

(a) Class I Wells.

At least one confining zone above the injection zone is required. The applicant shall demonstrate that the confining zone(s) has sufficient areal extent, thickness, lithologic and hydraulic characteristics to prevent fluid migration into underground sources of drinking water.

(b) Class III Wells.

If an underground source of drinking water exists above or below the proposed mining zone, a confining zone is required between the mining zone and the underground source of drinking water. The confining zone must be of such thickness, areal extent, and permeability to constrain the effects of the mining to the mining zone, and the integrity of the confining zone must be maintained for the life of the project.

(c) Testing of Confining Zone for Class I and III Wells.

The proposed methodology for testing the confining zone shall be submitted to the Department as part of the permit application. The applicant shall provide sufficient data such as geophysical logs, lithologic cores, physical core analysis, borehole video television surveys, water samples, and drill stem tests (or aquifer tests) to adequately demonstrate the confining characteristics of the bed. A monitoring system is required, which shall include one or more on-site monitor well(s), designed to confirm the long-term effectiveness of the confining zone. The following geophysical logs shall be considered for use in determining if adequate confinement is present:

1. Resistivity log;
2. Natural gamma-ray;
3. Fluid conductance log;
4. Caliper log;
5. Static and pumping temperature log;
6. Static and pumping spinner flowmeter;
7. Acoustic velocity; and
8. Porosity log.

(3) Injection Zone for Class I Wells.

(a) The applicant shall demonstrate that the proposed injection zone has sufficient extent, thickness, lithologic and hydraulic characteristics to adequately receive waste.

(b) The proposed methodology for testing the injection zone shall be submitted as part of the permit application to the Department. The purpose of testing the injection zone is to demonstrate the zone's capacity for receiving injected fluid. The applicant shall demonstrate the suitability of a proposed zone by determining the hydraulic characteristics, lithology, thickness, extent, and compatibility of injection and formation fluids. Testing of the injection zone shall include a pumping injection test at a flow rate of not less than the maximum design capacity of the well, and of such duration that can demonstrate the trend of the injection pressure on the long-term operating conditions. If an adequate water supply for the injection test does not exist, and the data collected during drilling provide assurance of the presence of confining bed(s), the applicant shall, after demonstrating mechanical integrity pursuant to subparagraphs 62-528.300(6)(b)2. and (c), F.A.C., be allowed to use secondarily treated domestic wastewater effluent after disinfection or desalination concentrate for testing only with specific prior written authorization from the Department as described in subsection 62-528.100(2), F.A.C. Methods to be considered for testing the injection zone include:

1. Water samples;
2. Withdrawal tests;
3. Video television survey;
4. Lithologic cores;
5. Drill cuttings.
6. Geophysical surveys such as:

a. Resistivity survey;
b. Natural gamma-ray;
c. Fluid conductance survey;
d. Caliper survey;
e. Static and pumping temperature survey;
f. Static and pumping spinner flowmeter;
g. Acoustic velocity; and
h. Porosity survey.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.721 FS. History–New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.21, 17-28.210, 62-28.210, Amended 8-10-95, 6-24-97.

62-528.410 Well Construction Standards for Class I and III Wells.

(1) General Design Considerations.

(a) All Class I and III wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water, and to maintain the ground water quality in aquifers above the injection zone that may be used for monitoring or other purposes.

(b) All Class I wells shall be designed and constructed so that they inject into a formation which is beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.

(c) In the design specifications for a Class I well, the applicant shall address the problem of corrosion, proposed protective measure(s), and, when appropriate, proposed methods of monitoring. The applicant shall consider thickness and type of cement, number and thickness of casings, casing material, casing coatings, formation fluid (water) quality, injection fluid quality and life expectancy of the well.

(d) For Class I wells all outer surfaces of uncemented casings or portions of casings shall be coated or otherwise protected against corrosion. This protection shall extend for a minimum distance of thirty feet above and below the uncemented portion of the casing.

(e) All Class I injection wells, except those municipal wells (publicly or privately owned) injecting noncorrosive wastes, shall inject fluids through tubing with a packer set immediately above the injection zone, or tubing with an approved fluid seal as an alternative. All existing non-municipal wells constructed without tubing and packer or a fluid seal shall modify their design to incorporate a tubing and packer or fluid seal no later than July 1, 1997, or cease injection unless an alternative to a packer has been approved by the Department under subparagraph 1., below. Existing wells receiving non-municipal waste through a tubing and packer shall not be allowed to remove the tubing and packer as long as injection of non-municipal waste continues unless an alternative to a packer has been approved by the Department under subparagraph 1., below. The tubing, packer, and fluid seal shall be designed for the expected service.

1. The use of other alternatives to a packer shall be allowed with the written approval of the Department. To obtain approval, the applicant shall submit to the Department a written request which shall set forth the proposed alternative and all technical data supporting its use. The Department shall approve the request if the applicant demonstrates that the alternative method will reliably provide a comparable level of protection to underground sources of drinking water.

2. In determining and specifying requirements for tubing, packer, or alternatives, the following factors shall be considered:

a. Depth of setting;

b. Characteristics of injection fluid (chemical content, corrosiveness, and density);

c. Injection pressure;

d. Annular pressure;

e. Rate, temperature and volume of injected fluid; and

f. Size of casing.

(f) For Class I wells the following designs are not allowed:

1. Annuli between casings open to the land surface in any injection well, and

2. Monitoring tubes emplaced and cemented in the annulus adjacent to the innermost or injection string of casing.

(g) For all Class I wells, the applicant shall address potential surge and water hammer protection to protect the safety and integrity of any injection well system.

(h) Department approval, as described in subsection 62-528.100(2), F.A.C., is required prior to any of the following:

1. Remedial procedures that alter the basic design specifications, materials, or character of a Class I or III well;

2. Any work requiring the complete removal of the wellhead; or

3. Any injection of fluids other than those authorized under the existing permit.

(2) Exploratory Pilot Hole.

The Department shall require an exploratory pilot hole in any Class I well, or for Class III wells, at any proposed injection well site, and shall require that the hole be drilled in stages. The Department shall waive the requirements of this subsection if the applicant can demonstrate that they are not needed to protect underground sources of drinking water and that waiving the requirements will not adversely affect the successful construction or operation of the well.

(3) Drilling.

A step-by-step drilling plan shall be included in the design specifications for Class I and III wells. The drilling plan shall specify the

proposed drilling program, sampling, coring, and testing procedures, and is subject to Department approval.

(a) For Class I wells, a deviation survey shall be run in the pilot hole at least every ninety feet (every three joints) of the portion of the well which is to be cased and at more frequent intervals when necessary to ensure that the casing can be set and centered for cementing. The maximum deviation at each measurement shall not exceed one degree deviation from vertical. The Department recognizes that the design requirements in this section are not necessary in all cases. The Department shall modify these requirements in the construction permit provided that the applicant submits proof that such modification will not adversely affect the successful construction and future operation of the well.

(b) For Class I wells, the Department shall require directional surveys, if, after an analysis of the well design and drilling program, it is needed to verify that the reamed hole has followed the pilot hole. The directional survey shall be conducted during drilling or in the pilot hole and the reamed hole as separate surveys before installation of the casing.

(c) The Department shall require the applicant to demonstrate that when salt is used for density control during drilling it will not adversely affect the establishment of background water quality for monitoring purposes.

(4) Casings.

(a) The casings used in the construction of each newly drilled Class I and III well shall be designed for the life expectancy of the well, and shall be new and unused for Class I wells.

(b) The number, thickness, type of materials, and length of casing shall be sufficient to protect the quality of drinking water resources and the integrity of the well and the confining strata. The final string of casing shall be made of seamless mild steel pipe having a minimum 0.500 inch wall thickness. An applicant who proposes to use pipe composed of other than 0.500 inch wall seamless mild steel for the final casing shall demonstrate that the proposed material and thicknesses will not compromise the integrity or operation of the well.

(c) Exact setting depths of all casings or tubing shall be determined from field data, based on all available information. Department approval shall be obtained prior to installation of the injection casing and the casing which extends to the base of the underground source of drinking water. In order to obtain approval, the permittee shall submit a request to the Department. The Department shall approve the request if the proposed setting depth of the casing or tubing meets the requirements of this chapter and will not adversely affect the operation of the injection well.

(5) Cementing.

(a) The applicant shall submit the proposed cementing program with the design specifications for Class I or III wells. The cement used in the construction of each newly drilled well shall be designed for the life expectancy of the well. In determining and specifying casing and cementing requirements, the following factors shall be considered:

1. Depth to the injection zone;

2. Injection pressure, external pressure, internal pressure, and axial loading;

3. Hole size;

4. Size and grade of all casing strings (wall thickness, diameter, nominal weight, length, joint specification, and construction material);

5. Corrosiveness of injected fluid, formation fluids, and temperatures;

6. Lithology of injection and confining zones; and

7. Type or grade of cement.

(b) Cement must be compatible with the injection fluid, native fluids, and the formation, but in no case less than the quality of American Society of Testing and Materials Type 2 or its equivalent (Standard Specification for Portland Cement, American National Standards Institute/American Society of Testing and Materials C 150-94, 1994, which is incorporated herein by reference).

(c) Applicants shall submit with the design specifications, a list of cement additives which may be needed in the operation. If an additive is not in the design specifications, the applicant shall obtain prior approval for its use from the Department, as described in subsection 62-528.100(2), F.A.C. Accurate records shall be kept and all additives used shall be reported.

(d) During drilling, the use of cement additives approved in paragraph (c) above, water/cement ratio, and the type of water used for mixing shall be determined by the applicant, provided the integrity, containment, corrosion protection, and structural strength of the cement are not significantly affected.

(e) Prior to cementing, the hole shall be conditioned to create optimum bonding of the cement to the casing and formation and to prevent channeling.

(f) Cement placement shall be in such a manner that the purposes and characteristics of the cement are retained, and shall be in

accordance with "AWWA Standard for Water Wells", American Water Works Association A100-90, 1990, which is incorporated herein by reference.

(g) The applicant shall submit his cement testing program with the permit application. The purpose of the cement testing program is to ensure that the cement seal is adequate to prevent migration of fluids in channels, microannular space, or voids in the cement. The methods of testing include:

1. Temperature Survey – shall be run within forty-eight hours after cementing;

2. Cement Evaluation Survey.

(h) During cementing, adequate pressure differentials shall be maintained to prevent collapse or distortion of the casing.

(i) Class I wells.

1. The final string of casing shall have a nominal overdrill of ten inches unless the applicant can affirmatively demonstrate that an overdrill of not less than five inches is sufficient. The annulus surrounding the final string of casing shall have a nominal five inch cement thickness from the bottom of the casing to land surface. The Department recognizes that these design requirements may not be necessary in all cases. The Department shall modify these requirements in the construction permit if the applicant submits proof that such modification will not adversely affect the successful construction and future operation of the well in such a way as to threaten an underground source of drinking water with contamination.

2. The remaining casings shall have a minimum thickness of 2.500 inches of cement surrounding the casings with not less than five inches of overdrill. A nominal ten inch overdrill shall be required with any intermediate string of casing for which an annular monitor tube of up to 2.375 inches maximum outer diameter is to be emplaced. Commensurate increases in the overdrill shall be required for monitor tubes larger than 2.375 inches in outer diameter.

3. The applicant shall include with the cementing program a centralizing program for the purpose of centralizing the casing, to provide adequate annular space around the casing for proper cementing.

(6) Testing During Drilling and Construction of New Class I Wells.

(a) Geophysical surveys and other tests shall be conducted during the drilling and construction of new Class I wells. A descriptive report interpreting the results of such geophysical surveys and tests shall be presented to the Technical Advisory Committee during in-progress reviews, as part of periodic progress reports, or in letter form as appropriate. Such reports shall include field copies of the surveys and test data and analysis results at the level required to support field decisions made during drilling or proposed during in-progress reviews. Such surveys and tests shall include:

1. Deviation checks shall be in accordance with subsection 62-528.410(3), F.A.C. Such checks shall be at sufficiently frequent intervals to assure that vertical avenues for fluid migration in the form of diverging holes are not created during drilling.

2. Such other geophysical surveys and tests as are needed after taking into account the availability of similar data in the area of the drilling site, the construction plan, and the need for additional information that may arise as the construction of the well progresses. In determining which geophysical surveys and tests shall be required, the following geophysical surveys shall be considered for use in the following situations:

a. For surface casing intended to protect underground sources of drinking water a resistivity, sonic survey, gamma ray, spontaneous potential, and mechanical or sonar caliper surveys before the casing is installed, and a cement evaluation or temperature survey after the casing is set and cemented.

b. For intermediate and long strings of casing intended to facilitate injection a resistivity, spontaneous potential, porosity, fracture finder surveys and gamma ray surveys before the casing is installed, and a cement evaluation, temperature, or density survey after the casing is set and cemented.

c. For Class I wells in which an annular monitor tube is proposed for other than the final or innermost casing a caliper survey in the reamed hole which is to contain the monitor tube, and a temperature survey in the monitor tube after the monitor tube has been set and cemented.

(b) The following information concerning the injection formation shall be determined or calculated for new Class I wells:

1. Fluid pressure;

2. Temperature;

3. Fracture pressure;

4. Other physical and chemical characteristics of the injection matrix; and

5. Physical and chemical characteristics of the formation fluids.

(7) Testing of Completed Class I Wells.

Upon completion of construction, the completed wells shall be tested to assure that the wells will function as built. Tests to be performed include:

(a) Cement evaluation survey;

(b) Temperature survey;

(c) Pressure test of the final casing to at least 1.5 times the expected injection pressure or 50 pounds per square inch, whichever is greater, for one hour, with a change in pressure of no more than five percent from the initial test pressure;

(d) Video television survey – from top to bottom of the well for baseline monitoring purposes;

(e) Injection tests;

(f) Withdrawal tests – if necessary and if possible;

(g) Caliper survey; and

(h) Radioactive tracer survey.

(8) Testing of Class III Wells.

(a) Geophysical surveys and other tests shall be conducted during the drilling and construction of new Class III wells. Upon completion of construction, the completed well system shall be tested to assure that the well system will function properly at the designed operation pressures. A descriptive report interpreting the results of such surveys and tests shall be prepared and submitted to the Department. The surveys and tests appropriate to each type of Class III well shall be determined based on the intended function, depth, construction and other characteristics of the well, availability of similar data in the area of the drilling site and the need for additional information as the construction of the well progresses. Such surveys and tests shall include deviation checks conducted on all holes where pilot holes and reaming are used, at sufficiently frequent intervals to assure that vertical avenues for fluid migration in the form of diverging holes are not created during drilling.

(b) Where the injection zone is a water bearing formation, the following information concerning the injection zone shall be determined or calculated for new Class III wells:

1. Fluid pressure;

2. Temperature;

3. Fracture pressure;

4. Other physical and chemical characteristics of the injection zone;

5. Physical and chemical characteristics of the formation fluids; and

6. Compatibility of injected fluids with formation fluids.

(c) Where the injection formation is not a water bearing formation, the information in subparagraphs (b)3. and (b)4. of this subsection shall be submitted.

(9) Environmental Concerns During Construction.

(a) For Class I and III wells, the disposal of drilling fluids or cuttings and the disposal of formation water or waste during testing shall be done in a sound environmental manner that avoids violation of surface and ground water quality standards. The applicant shall submit the proposed disposal methods with the permit application.

(b) For Class I wells the use of drilling pads is required. The pads shall be designed to collect spillage of contaminants and to support the heaviest load that will be encountered during drilling. At locations where the unconfined aquifer contains less than 10,000 mg/L total dissolved solids, monitor wells capable of detecting any contamination of the unconfined aquifer from drilling activities shall be required.

(c) For Class I wells, flow control shall be used when drilling into formations in which pressure heads exceed land surface, to prevent uncontrolled release of formation or drilling fluids at land surface.

(d) For Class III wells, the applicant is advised that other permits may be required for surface facilities associated with the mining activity.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087 FS. History–New 4-1-82, Amended 5-8-85, Formerly 17-28.22, 17-28.220, 62-28.220, Amended 8-10-95, 6-24-97.

62-528.415 Operation Requirements for Class I and III Wells.

(1) Class I Well Operation Requirements.

Operation requirements for Class I wells shall specify that:

(a) To preserve the integrity of the formations, bottom hole (including hydrostatic) pressure shall not exceed a maximum so as

to ensure that the injection pressure does not initiate new fractures or propagate existing fractures in the injection zone, initiate fractures in the confining zone, significantly alter the fluid containment capabilities of the confining zone, or cause the movement of injection or formation fluids into an underground source of drinking water or into an essential monitoring zone;

(b) To protect the integrity of the well structure, total pressure shall not exceed the maximum allowable stress of the materials used to construct the well;

(c) The maximum sustained injection pressure shall not exceed two-thirds of the most recent mechanical integrity test pressure.

(d) Injection for disposal purposes is prohibited:

1. Between the casings protecting the underground sources of drinking water and the well bore;

2. Through monitor wells or annular monitor tubes; or

3. Through wells designed to monitor the injection zone except when specifically designed as a temporary or standby injection well or approved (in writing) for emergency discharge use.

(e) Unless an alternative to a packer has been approved under subparagraph 62-528.410(1)(e)1., F.A.C., the annulus between the tubing, where required, and the final or innermost string of casing shall be filled with a fluid and a pressure shall be maintained on the annulus. Both the type of fluid and the proposed pressure shall be submitted as part of the construction permit approved by the Department;

(f) Injection Fluid Velocity.

1. The maximum velocity of injected fluid shall not exceed the point where the mechanical limits of the well design or structure of the formation will be adversely affected.

2. Except as provided in 3. below, the maximum injection velocity of a well that begins operation after June 1, 1985, shall not exceed a peak hourly flow of ten feet per second (ft/sec), unless the applicant demonstrates that higher velocities will not compromise the integrity or operation of the well.

3. An injection system may be designed to allow an injection velocity not to exceed a peak hourly flow of 12 ft/sec during planned testing, maintenance, or emergency conditions when one or more wells are taken out of service if the permittee provides the Department with reasonable assurance that the higher velocities will not compromise the integrity or operation of the well(s).

(2) Class III Well Operation Requirements. Operation requirements prescribed for Class III wells shall specify that:

(a) Injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone, initiate fractures in the confining zone or cause the migration of injection or formation fluids into an underground source of drinking water; and

(b) Injection between the casings protecting underground sources of drinking water and the well bore is prohibited;

(c) Where the proposed mining operation includes mining a portion of the confining zone, a sufficient amount of confining zone must remain to provide an effective confinement that protects aquifers above and below the mining area.

(3) Operation and Maintenance Manual.

(a) An operation and maintenance manual(s) for injection well disposal facilities, or portions thereof, shall be prepared for the use of operators, maintenance personnel, technicians, laboratory personnel, and others as appropriate, and shall consist of:

1. Written instructions provided to the injection system operators which specify:

a. Procedures for the safe reliable operation of the system; and

b. Procedures to be used in the event of an emergency.

2. Records of the basic engineering design and equipment description; and

3. A program to assure proper maintenance of the system.

(b) The operation and maintenance manual(s) is subject to approval by the Department under Rule 62-4.240, F.A.C., prior to issuance of a permit and shall be submitted to the Department.

(c) A copy of the approved manual shall be provided to the operators, maintenance personnel, technicians, laboratory personnel, and others as appropriate, by the permittee of the facility. The manual(s) shall be available for reference at the facility or other site readily available to the operator.

(d) The manual shall be revised to reflect any facility modifications performed in order to comply with the requirements of this chapter or to reflect experience resulting from facility operation.

(4) Abnormal Events.

(a) In the event the permittee is temporarily unable to comply with any of the conditions of a permit due to breakdown of

equipment, power outages, destruction by hazard of fire, wind, or by other cause, the permittee of the facility shall notify the Department. Notification shall be made in person, by telephone, or by telegraph within 24 hours of breakdown or malfunction to the office of the Department that issued the permit.

(b) A written report of any noncompliance referenced in paragraph (a) above shall be submitted to the appropriate district office within five days after its occurrence. The report shall describe the nature and cause of the breakdown or malfunction, the steps being taken or planned to be taken to correct the problem and prevent its reoccurrence, emergency procedures in use pending correction of the problem, and the time when the facility will again be operating in accordance with permit conditions.

(c) Emergency Discharge.

1. Under emergency conditions in which the permittee is unable to use the permitted primary disposal method, the permittee shall use an emergency discharge only if a permit for the emergency method has been obtained prior to the emergency discharge. The permittee shall notify the Department office that issued the permit whenever the emergency discharge has been used.

2. The applicant shall address the emergency disposal methods in the construction permit application and the operation manual. The emergency discharge shall be fully operational and the permittee for a Class I well shall obtain all permits required to operate the emergency discharge prior to any emergency discharge.

(d) In the event a well must be redeveloped, the applicant shall address disposal of backwashed fluids in a written submittal to the Department. The redevelopment of the well, including the disposal method, shall be approved by the Department in writing if it meets all applicable Department rules and it will not adversely affect the construction or operation of the well.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.161 FS. History–New 4-1-82, Amended 5-8-85, Formerly 17-28.23, 17-28.230, 62-28.230, Amended 8-10-95, 6-24-97.

62-528.420 Monitoring Well Construction Standards for Class I and III Wells.

(1) General Design Considerations.

(a) For Class I wells, associated on-site, cluster, multihorizon, or annular monitoring wells shall not penetrate the injection zone or final confining bed.

(b) For satellite and regional monitor wells associated with Class I wells, cluster or multihorizon monitoring wells shall be allowed to penetrate the injection zone or final confining bed only if the applicant demonstrates that the underground sources of drinking water and confining strata will be protected, the integrity of the monitoring and injection well system will be protected, and the well is designed in such a way that it can be easily repaired.

(c) All monitoring wells constructed for Class III injection operations shall be constructed in accordance with Chapter 62-532, F.A.C.

(d) Department approval by permit modification is required prior to any remedial procedures that alter the basic design specifications.

(2) Exploratory Pilot Hole.

For Class I wells, the Department shall require an exploratory pilot hole and shall require that the hole be drilled in stages. The Department shall waive the requirements of this subsection if the applicant can demonstrate that they are not needed to protect underground sources of drinking water and that waiving the requirements will not adversely affect the successful construction or operation of the monitor well.

(3) Drilling.

The Department shall require that a step-by-step drilling plan be submitted with the design specifications.

(4) Casings and Tubing.

(a) The casings or tubing used in the construction of each newly drilled well shall be designed for the life expectancy of the well.

(b) The number, thickness, type of material, and length of casing or tubing shall be sufficient to protect the quality of drinking water resources and the integrity of the well and confining strata. The type of materials used in the monitoring well shall not bias the sampling parameters used in the monitoring program.

(c) Exact setting depths for all casings or monitor tubing shall be determined from field data, based on all available information. Department approval shall be obtained prior to installation of the monitor casing. In order to obtain approval, the permittee shall submit a request to the Department. The Department shall approve the request if the proposed setting depth of the casing or tubing meets the monitoring requirements of this chapter and will not adversely affect the operation of the injection well.

(5) Cementing.

(a) The applicant shall submit the proposed cementing program with the design specifications. The cement used in the construction of each newly drilled well shall be designed for the life expectancy of the well. The applicant shall submit a list of proposed additives with the construction permit application.

(b) Cement must be compatible with the native fluids and the formation, but in no case less than the quality of American Society for Testing and Materials Type 2 or its equivalent (Standard Specification for Portland Cement, American National Standards Institute/American Society for Testing and Materials C 150-94, 1994).

(c) Cement placement shall be in such a manner that the purposes and characteristics of the cement are retained, and shall be in accordance with "AWWA Standard for Water Wells", American Water Works Association A100-90, 1990.

(d) The applicant shall submit his cement testing program with the permit application for Department approval.

(e) For Class I monitor wells other than annular monitor wells, a nominal thickness of 2.5 inches of cement surrounding the casings with not less than five inches of overdrill is required, except for the annulus being used for monitoring in wells with open annulus monitoring.

(f) All casings and tubing shall be centralized where possible to ensure uniform cementing.

(g) All outer surfaces of casing or tubing which are uncemented shall be protected from corrosion for a minimum of thirty feet above and below the uncemented portion.

(6) Testing of Monitoring Well Construction.

Test to be considered by the applicant shall include:

(a) Cement evaluation survey.

(b) Temperature survey.

(c) Oxygen activation log.

(d) Noise log.

(e) Pressure test to at least 1.5 times the expected ultimate monitoring pressure but not less than 50 pounds per square inch for one hour.

(f) A pumping test to determine if the monitor well has sufficient capacity to yield a representative ground water sample.

(g) Chemical analyses of water from strata tapped by well.

(h) Water level measurement referenced to National Geodetic Vertical Datum (NGVD) of 1929.

Rulemaking Authority 403.061, 403.087 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.161 FS. History–New 4-1-82, Amended 5-8-85, Formerly 17-28.24, 17-28.240, 62-28.240, Amended 8-10-95.

62-528.425 Monitoring Requirements for Class I and III Wells.

(1) Class I Wells. For Class I wells, monitoring requirements shall include:

(a) The analysis of the injected fluids at a frequency specified in the permit to yield representative data on their characteristics;

(b) The installation and use of continuous indicating, recording, and totalizing devices to monitor flow rate and volume, and installation and use of continuous indicating and recording devices to monitor the injection pressure and the pressure on the annulus between the tubing and the final or innermost string of casing, if there is an annulus;

(c) A controlled injection test or a bottom hole pressure survey, if a long-term trend of increasing injection pressure is indicated.

(d) A demonstration of mechanical integrity pursuant to subsection 62-528.300(6), F.A.C., at least once every five years during the life of the well; and

1. As part of the baseline monitoring information, a video television survey from the surface to the bottom of the injection zone shall be run prior to injection but after completion of testing, except for those wells that inject through tubing or where it is physically impossible to do so, and every five years thereafter, or more frequently if impairment of the integrity of the casing, tubing, or formation is suspected based on physical or geochemical data such as water quality, pressure changes, or mechanical integrity results.

2. The television survey may be either black and white or color.

3. Adequate provisions shall be made to centralize the camera in the borehole.

4. Before running the survey, adequate provisions shall be made to assure that fluid in both the casing and open borehole is of sufficient clarity to provide a baseline survey of a quality acceptable to the Department.

(e) An application to construct or operate a Class I well, and such permit shall address the following:

1. The type, number, and location of well(s) within the area of review to be used to monitor:

a. Any potential migration of fluids into or in the direction of underground sources of drinking water, and

b. Pressure in the underground sources of drinking water;

2. The parameters to be measured; and

3. The frequency of monitoring.

(f) The background water quality of the injection zone and the monitoring zone(s) shall be determined prior to injection for both domestic wastewater wells and industrial Class I wells (including desalination process reject water), in accordance with the sampling and testing methods outlined in Rule 62-601.400, F.A.C. Background levels shall be determined pursuant to the following criteria:

1. For monitor zones in Class G-I, F-I, G-II or G-III ground waters the primary and secondary drinking water quality parameters listed in Rules 62-550.310 and 62-550.320, F.A.C., and the minimum criteria provided in Rule 62-520.400, F.A.C.

2. For the injection zone and monitor zones in G-IV ground water the criteria shall be established in accordance with Rule 62-520.440, F.A.C.

(g) The Department shall require monitor wells above the injection zone near the injection well, field or project.

1. The permittee shall be able to monitor the following:

a. The absence of fluid movement adjacent to the well bore, and

b. The long-term effectiveness of the confining zone.

2. Monitor wells used to meet the requirements of subparagraph 1. above shall be sampled periodically. The frequency of sampling and constituents to be analyzed shall be specified in the permit and shall be representative of the monitored activity.

3. Monitor wells used to meet the requirements of 1.a. above shall be located within 150 feet of the injection well unless the applicant can demonstrate, through a hydrogeologic study, that a monitor well located at a greater distance will be capable of adequately monitoring fluid movement adjacent to the borehole.

4. The permittee shall monitor a zone below the base of the underground source of drinking water, if a zone is available, and at least one zone within, and near the base of, the underground source of drinking water.

5. The Department shall also require any of the following when needed to provide reasonable assurance that the requirements of 1. above are being met:

a. Continuous monitoring for pressure changes in the first aquifer overlying the confining zone.

b. Continuous monitoring for pressure changes in any monitor well constructed under subparagraph 1. above.

c. Periodic monitoring of ground water quality in the first aquifer overlying the injection zone.

d. Periodic monitoring of ground water quality in the lowermost underground source of drinking water.

e. Periodic additional monitoring to determine whether fluid movement caused by underground injection activity is occurring into or between underground sources of drinking water.

(h) The Department shall require monitor wells above and in the injection zone at a sufficient distance from the well, field or project for regional monitoring if such monitoring is necessary to protect waters of the State.

(i) When direct monitoring required under paragraph (g) above can not be provided or the results of such monitoring fail to provide reasonable assurance, the Department shall require the additional use of indirect geophysical techniques and computer modeling or such other techniques capable of providing reasonable assurance as to:

1. The position of the waste front,

2. The water quality in a formation or zone, or

3. Other site specific data.

(j) For Class I wells, a five gallon unacidized representative sample of native water from the injection zone shall where practical be collected and provided to the Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or a laboratory specified by the Department.

(k) Post-closure Monitoring. For Class I wells, if necessary to protect underground sources of drinking water the permit applicant shall be required to submit a post-closure monitoring plan designed to monitor the attenuation of any pressure effects and water quality changes caused by the underground injection operation both in the injection zone or in overlying aquifers. The proposed monitoring plan shall at a minimum use the injection wells and associated monitor wells, to the extent that they are capable of yielding representative ground water samples. The proposed monitoring plan may also include other accessible wells.

1. Items to be addressed by the permit applicant in the proposed post-closure monitoring plan shall include:

a. Designation of the wells to be used for post-closure monitoring;

b. The parameters to be monitored, by well;

c. The sampling frequency;

d. The proposed duration of the post-closure monitoring period; and

e. A documented estimate of the total cost of the post-closure monitoring program.

2. A revision of the post-closure monitoring plan shall be required by the Department when needed to reflect changes in the design or scope of the underground injection operation, inflation of costs associated with the plan, or other factors resulting from the construction or operation of the injection well system. The permittee also may initiate modification of the post-closure monitoring plan.

(2) Class III Wells. For Class III wells, monitoring requirements shall specify:

(a) The analyses of the physical and chemical characteristics of the injected fluid with sufficient frequency to yield representative data on its characteristics;

(b) Installation and use of continuous recording devices to monitor the injection pressure, flow rate and volume;

(c) The demonstration of mechanical integrity pursuant to subsection 62-528.300(6), F.A.C., at least once every five years during the life of the well;

(d) Weekly monitoring of fluid level and of the parameters chosen to measure water quality in the injection zone with sufficient frequency to yield representative data on its characteristics;

(e) Quarterly monitoring of wells adjacent to the injection site to detect any migration from the injection zone into an underground source of drinking water;

(f) All Class III wells may be monitored on a field or project basis rather than an individual well basis by manifold monitoring. Manifold monitoring may be used in cases of facilities consisting of more than one injection well operating with a common manifold. Separate monitoring systems for each well are not required provided the permittee demonstrates that manifold monitoring is comparable to individual well monitoring;

(g) The applicant shall continue monitoring after mining operations cease if site-specific factors or operational monitoring results indicate that there is a threat to an underground source of drinking water. Such monitoring shall continue until no threat remains. If the monitoring reveals violations, the permittee shall investigate and take corrective action.

(h) Monitoring Criteria.

1. Where injection is into a formation which contains water with less than 10,000 mg/L total dissolved solids, monitoring wells shall be completed into the injection zone and into any underground sources of drinking water which could be affected by the mining operation. These wells shall be located as to detect any excursion of injected fluids, process by-products, or formation fluids outside the mining area or zone. If the operation may be affected by subsidence or catastrophic collapse, the monitoring wells shall be located so that they will not be physically affected.

2. Where injection is into a formation which does not contain water with less than 10,000 mg/L total dissolved solids, monitoring wells shall be required above and in the injection zone if necessary to protect underground sources of drinking water.

3. Where the injection wells penetrate an underground source of drinking water in an area subject to subsidence or catastrophic collapse an adequate number of monitoring wells shall be completed into the underground source of drinking water to detect any movement of injected fluids, process by-products or formation fluids into the underground source of drinking water. The monitoring wells shall be located outside the physical influence of the subsidence or catastrophic collapse.

4. The Department shall require monitoring for subsidence if necessary to protect property or underground sources of drinking water.

(i) In determining the number, location, construction and frequency of monitoring of the monitoring wells, the following criteria shall be used:

1. The population relying on the underground source of drinking water affected or potentially affected by the injection operation;

2. The proximity of the injection operation to points of withdrawal of drinking water;

3. The local geology and hydrology;

4. The operating pressures and whether a negative pressure gradient is being maintained;

5. The toxicity and volume of the injected fluid, the formation water, and the process by-products; and

6. Number of injection wells per unit area.

Rulemaking Authority 403.061, 403.087 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.161 FS. History–New 4-1-82, Amended 5-

8-85, Formerly 17-28.25, 17-28.250, 62-28.250, Amended 8-10-95, 6-24-97.

62-528.430 Reporting Requirements for Class I and III Wells.

(1) Class I Test/Injection Well Construction Permit.

(a) The Department shall require periodic data reports and progress reports that include:

1. Driller's log;
2. Geophysical surveys;
3. Core analyses;
4. Lithologic logs;
5. Drill stem tests;
6. Pump tests;
7. Daily job (construction) reports; and
8. Water quality analyses.

(b) The frequency of reporting shall be specified in the individual permit.

(c) Interpretation of data is required in the data reports or progress reports at the completion of each significant phase of construction, such as completion of test well construction and testing, completion of injection well construction, and completion of injection well testing.

(d) The permittee shall provide direct distribution of the data reports, progress reports, and final reports to members of the Technical Advisory Committee.

(e) The applicant shall submit final reports of all data collected from the test injection well with interpretations, to the Department with the application for a Class I Test/Injection Well Construction and Testing Permit and a Class I Injection Well Operation Permit. The final report submitted with the application for a Class I Injection Well Operation Permit shall include all information and data collected under subsections 62-528.450(2) and (3), F.A.C., with appropriate interpretations.

(2) Class I Injection Well Permit.

(a) The applicant shall submit, as part of the permit application, the proposed methodology for collection and reporting of operational data, to ensure that the data is collected, correlated, and reported in a fashion that would enable the Department to evaluate well performance.

(b) All Class I wells shall report monthly the following:

1. Operating reports to the Department on:

a. The physical, chemical, and other relevant characteristics of injection fluids;

b. Daily readings of the pressure and flow for each well. For each domestic effluent disposal well, a specific injectivity test shall be performed quarterly;

c. Monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure; and

d. The results of monitoring prescribed under paragraph 62-528.425(1)(e), F.A.C.

2. Reporting the results, within three months after the completion of:

a. Periodic tests of mechanical integrity;

b. Any other test of the injection well conducted by the permittee if required by the Department; and

c. Any well work over.

(c) Additional reporting requirements for wells injecting fluids from a domestic wastewater facility shall be in accordance with Chapter 62-601, F.A.C.

(d) Specific injectivity testing shall be performed while the pumping rate to the well(s) has been set at a predetermined level and reported as the specific injectivity index (gpm/specific pressure (psig)). As part of this test, the well shall be shut-in for a period of time necessary to conduct a valid observation of pressure fall-off. The applicant shall propose which pumping rate will be used based on the expected flow, the design of the pump station including the volume of the wet well and pump type(s), and the type of pump controls used. The pumping rate(s) shall be included as a condition of the operation permit. For Class I wells, other than municipal wells the permittee shall conduct one pressure fall-off test annually.

(e) If physical or geochemical data such as water quality, pressure changes, or mechanical integrity test results indicate that fluid movement into or between underground sources of drinking water may be occurring, the permittee shall submit additional data to provide reasonable assurance that the injection operation is in compliance with the requirements of this chapter. This additional data

shall be submitted with the periodic operations reports, the content and frequency of which are specified in the individual permit.

(f) A Class I well permit shall be written to require that if subparagraph 62-528.300(5)(c)1., F.A.C., is applicable, progress reports shall be submitted no later than thirty days following each interim date and the final date of compliance.

(3) Class III Well Construction/Operation/Plugging and Abandonment Permit

(a) The Department shall require monthly operation reports and progress reports that include the following:

1. Driller's log;
2. Geophysical surveys;
3. Core analyses;
4. Lithologic logs;
5. Drill stem tests;
6. Withdrawal or aquifer tests;
7. Number of wells constructed, abandoned, in operation and recorded on property deeds;
8. Results of post-closure monitoring; and
9. Daily construction reports.

(b) Interpretation of data is required in the data reports or progress reports at the completion of each significant phase of construction.

(c) The Department shall require that the applicant provide direct distribution of the data reports and progress reports to members of the Technical Advisory Committee.

(d) Reporting Requirements. Reporting requirements shall include:

1. Quarterly reporting to the Department on required monitoring;

2. Results of mechanical integrity and any other periodic test required by the Department reported with the first regular quarterly report after the completion of the test; and

3. The Department shall allow monitoring to be reported on a project or field basis rather than individual well basis where manifold monitoring is used and if such reporting is adequate to protect waters of the State.

(e) At least once every year, but more frequently if specified in the permit, the permittee shall record with the property records of the county courthouse the plugging method and location of each well abandoned during that year.

(f) The permittee shall submit a final report of all data collected with interpretations, to the Department with the application for permit renewal. The final report shall include all information and data collected under subsections 62-528.450(2) and (3), F.A.C., with appropriate interpretations.

(4) Abandonment Reports for Class I and III Wells. Within 90 days after completion of plugging and abandonment of a well or well field the permittee shall submit to the Department a final report which includes:

(a) Certification of completion in accordance with approved plans and specifications by the engineer of record;

(b) Evidence, such as a sealed copy or certification from the county clerk, that a surveyor's plot of the location of the abandoned wells has been recorded in the county courthouse property records.

Rulemaking Authority 403.061, 403.087, 403.704 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.161, 403.702, 403.721 FS. History– New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.26, 17-28.260, 62-28.260, Amended 8-10-95, 6-24-97.

62-528.435 Plugging and Abandonment Criteria and Procedures for Class I and III Wells.

(1) Upon determination by the Department that a well poses a threat to waters of the State or within one year of determining that a well has been abandoned, the Department shall order the well plugged, unless otherwise provided for in a consent order.

(2) Any Class I or III permit shall include conditions to ensure that plugging and abandonment of the well will not allow the movement of fluids either into an underground source of drinking water or from one underground source of drinking water to another. These conditions shall include mechanical integrity testing prior to plugging of the injection well, or monitor well which penetrates the injection zone or final confining unit, if fluid movement through channels adjacent to the injection well bore is suspected. Any applicant for an underground injection control permit shall be required to submit a plan for plugging and abandonment, which shall address post-closure monitoring of the injection operation. The post-closure monitoring plan shall be designed in accordance with the requirements of paragraph 62-528.425(1)(j), F.A.C. Where the plan meets the requirements of this chapter, the Department shall incorporate it into the permit as a condition. Where the Department's review of an application indicates that the permittee's plan is inadequate, the Department shall require the applicant to revise the plan, prescribe conditions

meeting the requirements of this chapter, or deny the application. Where applicable, the plugging and abandonment plan shall address the proposed post-closure monitoring.

(3) Prior to abandoning Class I or III wells, the well shall be plugged with cement, or other materials if a Class III well, in a manner which will not allow the movement of fluids either into or between underground sources of drinking water. To use other plugging materials for Class III wells, the applicant shall demonstrate in the plugging and abandonment permit application that the proposed plugging materials will prevent movement of fluids into or between underground sources of drinking water.

(4) Placement of the plugging material shall be accomplished by one of the following methods:

(a) The Balance Method;

(b) The Dump Bailer Method;

(c) The Two-Plug Method; or

(d) Any other recognized method which is as effective or more effective than those listed above for the placement of plugging material in a manner that will not allow fluid movement to occur into or between underground sources of drinking water.

(e) For wells with an open hole completion, the cement shall be emplaced beginning at the deepest point required in the permit and upward to land surface or other method approved by the Department following the process described in subsection 62-528.100(2), F.A.C.

(5) The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized from top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Department, prior to the placement of the cement plug(s).

(6) The permittee shall notify the Department at least 180 days before conversion or abandonment of a Class I well, unless abandonment within a lesser period of time is necessary to protect the waters of the State.

(7) For all Class I wells, after removal of the tubing and packer (if applicable), the final or innermost string of casing shall be filled with neat cement grout or an approved equivalent from a depth of at least 10 feet below the bottom of the casing to land surface. Annular monitor tubes in an injection well are allowed to be left unplugged temporarily if they are to be used for their intended purpose and do not compromise the objectives listed above. If temporarily left open, the annular monitor tubes shall be plugged with cement at the end of post-closure monitoring. If the tubes are not used for monitoring, they shall be filled with neat cement from the bottom of the monitor zone to land surface.

(8) The plugging and abandonment plan required in Rules 62-528.435 and 62-528.460, F.A.C., shall, in the case of a Class III well field which underlies or is in an aquifer which has been exempted under subsection 62-528.300(3), F.A.C., also demonstrate that no movement of contaminants from the mined zone into an underground source of drinking water will occur. The Department shall prescribe aquifer cleanup and monitoring where necessary and feasible to ensure that no migration of contaminants from the mined zone into an underground source of drinking water will occur.

(9) Financial Responsibility. The permit shall require the permittee to demonstrate and maintain financial responsibility and resources necessary in the form of performance bonds or other equivalent form of financial assurance approved as described in paragraph (b) below, to close, plug, and abandon the underground injection operation.

(a) Class I hazardous waste wells shall comply with the financial responsibility requirements of 40 C.F.R. pt. 144 Subpart F (1994).

(b) For Class I wells used to inject non-hazardous fluids these requirements are specified in the Department's document "State of Florida Underground Injection Control Program Financial Responsibility Options for Owners and Operators of Injection Wells" (1996), which is incorporated herein by reference, and which may be obtained by writing to the Division of Water Resource Management, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. In lieu of individual financial guarantees, the applicant shall furnish a financial guarantee covering all the applicant's injection wells in this State. The Department shall require a certificate showing that the applicant has assured, through a performance bond or other appropriate means, that resources necessary to cover post-closure monitoring and any corrective action resulting from this monitoring have been provided.

(10) In the event a radioactive source tool has been irretrievably lost down an injection well, the Department shall be immediately notified. The well shall not be plugged until all applicable Nuclear Regulatory Commission regulations have been satisfied.

(11) Within 90 days after completion of plugging and abandonment the permittee of a well shall provide documentation that the well was properly abandoned.

Rulemaking Authority 403.061, 403.087 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.161 FS. History–New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.27, 17-28.270, 62-28.270, Amended 8-10-95, 6-24-97.

62-528.440 General Permitting Requirements for Class I and III Wells.

(1) Permitting Authority.

The Florida Department of Environmental Protection is the administering agency for the underground injection control rule and requires permits for all Class I and III wells. However, this does not absolve the permittee from obtaining permits, where necessary, from other state agencies, water management districts, or local programs nor relieve the permittee of the responsibility for obtaining such permits.

(2) General Prohibitions.

(a) Any underground injection through a Class I or III well is prohibited, except as authorized by permit under this chapter.

(b) Permits for any construction, modification (including hydrogeological modifications to the monitoring system), operation (except for testing purposes as authorized by the construction permit), or abandonment of Class I and III wells shall be obtained before such activities are commenced.

(c) Except as provided in 40 C.F.R. 146.15 and 146.16, as noticed in the *Federal Register*, Vol. 70, No. 224, November 22, 2005, pp. 70513 - 70532, hereby adopted and incorporated by reference, no underground injection activity shall be authorized where a Class I or III well causes or allows movement of fluid into underground sources of drinking water, if such fluid movement may cause a violation of any primary drinking water standard under 40 C.F.R. pt. 141 (1994), or may otherwise adversely affect the health of persons. The applicant for a permit shall have the burden of showing that the requirements of this paragraph are met.

(d) Except as provided in 40 C.F.R. 146.15 and 146.16, as noticed in the *Federal Register*, Vol. 70, No. 224, November 22, 2005, pp. 70513 - 70532, for Class I and III wells, if any water quality monitoring of an underground source of drinking water indicates the movement of injection or formation fluids into underground sources of drinking water, the Department shall prescribe such additional requirements for construction, corrective action (including closure of the injection well), operation, monitoring, or reporting as are necessary to prevent such movement. These additional requirements shall be imposed by modifying the permit, or the permit shall be terminated if cause exists, or appropriate enforcement action shall be taken if the permit has been violated.

(3) Duration for operation permits shall be specified by the Department but shall not exceed five years from the date of issuance. Construction permits shall be issued for a period of time as necessary to construct and test the well, but not to exceed five years from the date of issuance.

(4) Application for Permit.

(a) The applicant shall submit application for permits on form 62-528.900(1) and shall include:

1. The application form properly completed and signed pursuant to Rule 62-528.340, F.A.C.;

2. Information as required in Rules 62-528.450 through 62-528.460, F.A.C.;

3. Such additional information requested by the Department as described in subsection 62-528.100(2), F.A.C., necessary to provide reasonable assurance that the UIC project will operate in compliance with this chapter;

4. The appropriate fee as specified in subsection 62-4.050(4), F.A.C.

(b) One original and one copy of the application package shall be submitted to the Department. An additional copy shall be provided directly to each member of the Technical Advisory Committee as described in subsection 62-528.100(2), F.A.C., or in the permit.

(c) Any person who performs or proposes an underground injection for which a permit is required shall submit an application to the Department as follows:

1. For existing Class I or III wells, the submittal in accordance with the requirements of Rule 62-4.090, F.A.C.

2. For new Class I or III wells, not less than 90 days before construction is expected to begin.

(d) For Class III well fields or projects, the owner may apply for a single permit for the well field, provided all wells covered by the permit are within the same well field, are of similar construction, and are of the same class. However, a separate fee shall be assessed for each injection well.

(5) Certification by a Professional Engineer and Professional Geologist.

(a) All applications for construction permits shall be certified by a professional engineer and professional geologist, or an appropriately qualified professional engineer as defined in Chapters 471 and 492, F.S., registered in the State of Florida, except as provided in subsection 62-4.050(3), F.A.C.

(b) The application, plans, and specifications, certification of construction completion reports, operation and maintenance manual, and other related documents shall be certified by a professional engineer or professional geologist, as appropriate, registered in the State of Florida and retained by the applicant for that purpose.

(6) Area of Review.

(a) For Class I wells, the area of review study for a site shall be completed before the test injection well construction permits are issued.

(b) The minimum area of review for a Class III proposed mining site shall initially include the entire proposed mining area plus a surrounding perimeter zone of one mile on all sides. The initial area of review study shall be completed prior to construction; however, individual permit conditions will establish the interval, based on either the rate of geographical expansion of mining activity or a fixed period of time, at which the area of review study shall be updated.

Rulemaking Authority 373.309, 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.0877, 403.088, 403.161, 403.702, 403.721 FS. History–New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.31, 17-28.310, 62-28.310, Amended 8-10-95, 6-24-97, 12-27-05.

62-528.450 Class I – Test/Injection Well Construction and Testing Permit, and Class III - Well Construction Permit.

(1) General.

(a) The Department shall deny a construction permit if construction of the well itself may be a source of pollution as defined in Section 403.031, F.S.

(b) For a construction permit approval, reasonable assurance is required that the project will function in compliance with this chapter. The Department shall require an exploratory well for those projects located in an area where available information is lacking concerning geologic or hydraulic confinement or existing information indicates that geologic or hydraulic confinement may be poor or lacking.

(c) For a Class I well, issuance of a construction permit does not obligate the Department to authorize any operation of the well, unless reasonable assurance has been provided that the well can operate in compliance with this chapter.

(d) For a Class III well or well field, a single permit for construction, operation, plugging, and abandonment can be issued.

(2) Information Requirements. Information to be submitted with the construction permit application shall include the following:

(a) A map showing the location of the proposed injection wells or well field area for which a permit is sought and the applicable area of review. Within the area of review, the map shall show the number or name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, public water systems, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. The map shall also show faults, if known or suspected. Only information of public record and, in addition, pertinent information known to the applicant is required to be included on this map;

(b) A tabulation of data on all wells within the area of review which penetrate into the proposed injection zone, confining zone, or proposed monitoring zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging or completion, and any additional information in the applicant's possession about the potential for fluids to migrate into, or in the direction of, an underground source of drinking water;

(c) Maps and cross sections indicating the general vertical and lateral limits within the area of review of all underground sources of drinking water, their position relative to the injection formation and the direction of water movement, where known, in each underground source of drinking water which may be affected by the proposed injection;

(d) Maps and cross sections detailing the hydrology and geologic structures of the local area;

(e) Generalized maps and cross sections illustrating the regional geologic setting;

(f) Proposed operating date;

1. Average and maximum daily rate and volume of the fluid to be injected;

2. Average and maximum injection pressure; and

3. Source and an analysis of the chemical, physical, radiological and biological characteristics of injection fluids, including any additives for Class III wells. For Class I wells injecting domestic effluent, a demonstration that the effluent quality meets the standards specified in subparagraph 62-600.420(1)(d)1. and Rule 62-600.540, F.A.C.; or for new wells, the minimum treatment requirements set forth in 40 C.F.R. 146.15 and 146.16, as noticed in the *Federal Register*, Vol. 70, No. 224, November 22, 2005, pp. 70513 - 70532, hereby adopted and incorporated by reference. For all other Class I wells, a demonstration that the effluent quality

meets the standards specified in paragraph 62-660.400(1)(o), F.A.C.

(g) Proposed formation testing program to obtain an analysis of the chemical, physical and radiological characteristics of and other information on the injection zone;

(h) Proposed stimulation program;

(i) Proposed injection procedure;

(j) Engineering drawings of the surface and subsurface construction details of the system, including design features for surge control and water hammer protection;

(k) Contingency plans to cope with all shut-ins or well failures, or, for Class III wells, catastrophic collapse, to prevent migration of fluids into an underground source of drinking water, including emergency discharge provisions;

(l) Plans (including maps) and proposed monitoring data to be reported for meeting the monitoring requirements in Rule 62-528.425, F.A.C.;

(m) For wells within the area of review which penetrate the injection zone but are not properly completed or plugged, the corrective action proposed to be taken under subsection 62-528.300(5), F.A.C.;

(n) Construction procedures including a cementing and casing program, logging procedures, deviation checks, and a drilling, testing and coring program;

(o) A certificate that the applicant has ensured, through a performance bond or other appropriate means as required by subsection 62-528.435(9), F.A.C., the resources necessary to close, plug or abandon the well;

(p) For Class III wells, expected changes in pressure, native fluid displacement, direction of movement of injection fluid;

(q) For Class III wells, a proposed monitoring plan, which includes a plan for detecting any migration of fluids into, or in the direction of, underground sources of drinking water and the proposed monitoring data to be submitted.

(r) The Department adopts by reference 40 C.F.R. pt. 144.31(g) revised as of December 3, 1993.

(3) Operational Testing.

(a) For Class I wells, the construction permit includes a period of temporary injection operation for the purposes of long term testing. Prior to commencement of operational testing:

1. Construction of the injection well shall be complete and the permittee shall submit a notice of completion of construction to the Department.

2. Each well shall first be tested for integrity of construction, and shall be followed by a short term injection test of such duration to allow for the prediction of the operating pressure.

3. The permittee shall submit the following information to each member of the Technical Advisory Committee described in subsection 62-528.100(2), F.A.C., or in the permit:

a. A copy of the borehole television survey(s),

b. Geophysical logs,

c. Mechanical integrity test data,

d. Data obtained during the short term injection testing conducted pursuant to paragraphs 62-528.405(3)(a) and 62-528.410(7)(e), F.A.C., and subparagraph 1. above,

e. Confining zone data.

f. Background water quality data for the injection and monitor zones,

g. Wastestream analysis,

h. As-built well construction specifications, and

i. Other data obtained during well construction which demonstrates that the well will operate in compliance with this chapter.

4. The emergency discharge method shall be fully operational and no emergency discharge shall occur until the permittee has obtained all necessary Department permits.

5. Any corrective action required under subparagraph 62-528.300(5)(c)2., F.A.C., shall be completed.

6. Prior to granting approval, as described in subsection 62-528.100(2), F.A.C., for operational testing of a Class I well, the Department shall consider the following information:

a. All available logging and testing program data on the well;

b. A demonstration of mechanical integrity pursuant to subsection 62-528.300(6), F.A.C;

c. The anticipated maximum pressure and flow rate at which the permittee will operate;

d. The results of the formation testing program;

e. The actual injection procedure;

f. The compatibility of injected waste with fluids in the injection zone and minerals in both the injection zone and the confining zone;

g. The status of corrective action on defective wells in the area of review; and

h. The information submitted to the Technical Advisory Committee under subparagraph 2. above.

(b) Written authorization for operational testing shall be obtained from the Department as described in subsection 62-528.100(2), F.A.C. Authorization shall be for up to two years or the expiration date of the construction permit, whichever is less, and is nonrenewable. The authorization shall specify the conditions under which operational testing is approved. The authorization shall include:

1. Injection pressure limitation,
2. Injection flow rate limitation,
3. Injection well monitoring requirements,
4. Effluent monitoring requirements,
5. Weekly ground water sampling of monitor wells,
6. Monthly specific injectivity testing,
7. Reporting requirements, and
8. An expiration date for the operational testing period not to exceed two years.

(c) Before authorizing operational testing, the Department shall conduct an inspection of the facility to determine if the conditions of the permit have been met.

(d) If requested by the permittee, the Department shall allow, as described in subsection 62-528.100(2), F.A.C., less frequent sampling than required under subparagraph (b)5. above after a minimum of six months of operational testing if the data indicate that the parameter values have stabilized. However, a sampling frequency of less than once per month shall not be allowed.

(e) For Class I and III wells, the duration of the operational testing period shall not exceed two years or the expiration date of the construction permit, whichever is less. If the Department has not issued an intent to issue an operation permit for the injection well(s) by the end of the operational testing period, the permittee shall cease injection.

(f) For a Class I well, if an operation permit has not been obtained for the well within two years after the cessation of operational testing, the permittee shall submit an application to the Department on form 62-528.900(1) to plug and abandon the well in accordance with Rule 62-528.435, F.A.C.

(g) For Class III, the construction permit includes a period of temporary operation for the purpose of testing. Each well shall first be tested for integrity of construction, prior to any injection testing.

(4) Under Section 403.091, F.S., the Department conducts periodic inspections during construction.

(5) The construction and testing permit for a Class I well shall require that the following items be submitted to the State Geologist at the Florida Geological Survey, 903 West Tennessee Street, Tallahassee, Florida 32304:

(a) Cuttings obtained during well construction;

(b) Any cores obtained during well construction when no longer needed by the well owner;

(c) Any geophysical logs run during well construction; and

(d) A copy of the Final Report described in paragraph 62-528.430(1)(e), F.A.C.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.088, 403.091, 403.161 FS. History–New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.33, 17-28.330, 62-28.330, Amended 8-10-95, 6-24-97, 12-27-05.

62-528.455 Class I and Class III – Injection Well Operation Permit.

(1) General Requirements.

(a) A separate underground injection control permit shall be obtained for each Class I injection facility. For multiwell injection systems, a separate underground injection control permit application need not be submitted for each well; however a separate application fee shall be assessed for each well in accordance with paragraph 62-4.050(4)(i), F.A.C.

(b) Under Section 403.091, F.S., the Department conducts periodic inspections during the period authorized by the operation permit.

(c) A report shall be submitted with each application for a Class I well operation permit. For multiwell injection systems, one report may be submitted which addresses each well of that system. The report shall include:

1. Results of the information obtained under the construction permit described in subsection 62-528.450(2), F.A.C.;

2. Record drawings, based upon inspections by the engineer of record or persons under his direct supervision, with all deviations noted;

3. Certification of completion submitted by the engineer of record;

4. An operation manual including emergency procedures;

5. Proposed monitoring program and data to be submitted;

6. Proof that the existence of the well and any associated monitoring wells has been recorded with the permanent warranty deed or other instrument of conveyance as a two page proviso or addendum that contains certification of the locations of the wells (by metes and bounds) and a detailed sketch of the parcel that shows the location of the well. The location shall be measured by a Florida certified land surveyor, and shall contain the surveyor's signature, registration number, official seal, and the following statement: "I hereby certify that this survey was made under my responsible direction and supervision, and is a correct representation of the land surveyed."

7. Copies of mill certificates for casing used in the well(s) construction. The owner shall retain the original records.

(d) No Class I injection well operation permit shall be issued until the emergency disposal method is fully operational and no emergency discharge shall occur until the permittee has received the required Department permits.

(e) The permittee shall provide direct distribution of the data reports, progress reports, and final reports to each member of the Technical Advisory Committee as described in subsection 62-528.100(2), F.A.C.

(2) Prior to granting approval for the operation of a Class I well or a Class III well or well field, the Department shall consider the following information which, for Class I, was obtained during construction and operational testing under the construction permit:

(a) All available logging and testing program data and construction data on the well or well field;

(b) A satisfactory demonstration of mechanical integrity for all new wells pursuant to subsection 62-528.300(6), F.A.C.;

(c) The actual operating data where feasible, or the anticipated maximum pressure and flow rate at which the permittee will operate the well;

(d) The results of the formation testing program;

(e) The actual injection procedure;

(f) For Class I, the compatibility of injected waste with fluids in the injection zone and minerals in both the injection zone and the confining zone;

(g) The status of corrective action on defective wells in the area of review;

(h) The recommendation of the Technical Advisory Committee concerning the operational feasibility of this well or well field.

(3) Repermitting the Operation of Class I Wells.

(a) The permittee shall submit an application to repermit the operation of a Class I well to the Department at least 60 days before the expiration date of the current operation permit.

(b) The application to repermit the operation shall include the following:

1. An evaluation of the size of the area of review based on actual operation and monitoring data;

2. Updated area of review information required under paragraphs 62-528.450(2)(a) through (d), F.A.C.;

3. A wastestream analysis representative of the fluids which are currently being injected;

4. The process types or categories which are a source of the fluid being injected;

5. A satisfactory demonstration of mechanical integrity for the well(s) pursuant to subsection 62-528.300(6), F.A.C;

6. Results of ground water and other monitoring data obtained since the last permit was issued. The permittee shall provide a tabular and graphical presentation of all ground water monitoring data required by this subparagraph unless the Department, through the process described in subsection 62-528.100(2), F.A.C., approves an alternate list of parameters for the reasons specified in sub-subparagraphs a. and b. below;

a. The monitoring results for a parameter are below detectable limits, or

b. The parameter was not required to be monitored under the current permit or by Chapter 62-528, 62-600, or 62-601, F.A.C.

7. Results of all specific injectivity and pressure fall-off information obtained since the well began operation, or the date of the most recent repermitting of the well if all available information were submitted at that time; and

8. Financial responsibility information required by subsection 62-528.435(9), F.A.C., based on an updated plugging and abandonment plan and cost estimate.

(c) The operation of a Class I well shall not be repermitted unless the applicant has made the following demonstrations:

1. Available water quality monitoring data does not indicate that fluid movement into or between underground sources of drinking water is occurring as a result of injection activity, except as authorized under 40 C.F.R. 146.15, as noticed in the *Federal Register*, Vol. 70, No. 224, November 22, 2005, pp. 70513 - 70532, hereby adopted and incorporated by reference;

2. Mechanical integrity has been demonstrated under subsection 62-528.300(6), F.A.C.;

3. Financial responsibility has been demonstrated; and

4. Other applicable rules of this chapter have been met.

Rulemaking Authority 373.309, 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087, 403.0877, 403.088, 403.161, 403.702, 403.721 FS. History–New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.34, 17-28.340, 62-28.340, Amended 8-10-95, 6-24-97, 12-27-05.

62-528.460 Class I and Class III Well Plugging and Abandonment Permit.

(1) The Department shall require a Class I or III well, or a test well, or monitor well associated with a Class I or III well, to be abandoned when it is no longer usable for its intended purpose or other purpose as approved by the Department, or when it poses a potential threat to the quality of the waters of the State. The permittee may also initiate abandonment procedures.

(2) In order to receive approval for the plugging and abandonment of a Class I or III well, or a test or monitor well associated with a Class I or III well, the applicant shall provide reasonable assurance that the well will be plugged and abandoned in accordance with Rule 62-528.435, F.A.C. The applicant shall submit the following:

(a) The justification for abandonment;

(b) A proposed plan for plugging and abandonment describing the preferred and alternate methods:

1. The type and number of plugs to be used;

2. The placement of each plug including the elevation of the top and bottom;

3. The type, grade, and quantity of cement or for Class III wells only, any other approved plugging material to be used in the cased portion of the well;

4. The type, grade, and quantity of cement or any other approved plugging material (if any) to be used to fill the open hole portion of the well;

5. The method for placement of the plugs;

(c) The procedure to be used to meet the requirements of Rule 62-528.435, F.A.C.; and

(d) The results of mechanical integrity testing if required under subsection 62-528.435(2), F.A.C.

(3) In the event of a well failure that requires abandonment, the applicant shall conduct an investigation to collect sufficient information to identify the most appropriate method to properly abandon the well.

(4) Within 90 days of completion of plugging and abandonment procedures, the engineer of record shall provide certification of completion in accordance with the plans and specifications.

(5) Under Section 403.091, F.S., the Department conducts periodic inspections at certain stages of plugging.

(6) The permittee shall retain all records concerning the nature and composition of injected fluid until five years after completion of any plugging and abandonment procedures specified under subsection 62-528.400(3) (hazardous waste wells) or Rule 62-528.435, F.A.C. Whenever after this retention period the permittee no longer wishes to retain the records, the permittee shall deliver the records to the Department office that issued the permit.

Rulemaking Authority 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.088, 403.091, 403.161 FS. History–New 4-1-82, Formerly 17-28.35, 17-28.350, 62-28.350, Amended 8-10-95, 6-24-97.

62-528.500 General Criteria for Class IV Wells.

Rulemaking Authority 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.702, 403.721 FS. History–New 4-1-82, Formerly 17-28.41, 17-28.410, 62-28.410, Amended 8-10-95, Repealed 2-16-12.

62-528.510 General Prohibition of Class IV Wells.

The construction or operation of any Class IV well is prohibited after April 1, 1982.

Rulemaking Authority 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.161, 403.702, 403.721, 403.7222, 403.727 FS. History–New 4-1-82, Formerly 17-28.42, 17-28.420, 62-28.420, Amended 8-10-95.

62-528.520 Waste Analysis For Class IV Wells.

Rulemaking Authority 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.702, 403.721 FS. History–New 4-1-82, Formerly 17-28.43, 17-28.430, 62-28.430, Amended 8-10-95, Repealed 2-16-12.

62-528.530 Ground Water Monitoring and Response for Class IV Wells.

Rulemaking Authority 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.0877, 403.702, 403.721 FS. History–New 4-1-82, Amended 5-8-85, Formerly 17-28.44, 17-28.440, 62-28.440, Amended 8-10-95, 6-24-97, Repealed 2-16-12.

62-528.540 Closure and Post-Closure Requirements for Class IV Wells.

Rulemaking Authority 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.0877, 403.702, 403.721 FS. History–New 4-1-82, Amended 8-30-82, Formerly 17-28.45, 17-28.450, 62-28.450, Amended 8-10-95, 6-24-97, Repealed 2-16-12.

62-528.550 Financial Requirements for Class IV Wells.

Rulemaking Authority 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.702, 403.721 FS. History–New 4-1-82, Formerly 17-28.46, 17-28.460, 62-28.460, Amended 8-10-95, Repealed 2-16-12.

62-528.600 General Criteria for Class V Wells.

(1) Rules 62-528.600 through 62-528.645, F.A.C., set forth criteria and standards to regulate all injection wells not regulated in previous sections of this chapter.

(a) Generally, wells covered by these rules inject non-hazardous fluids into or above formations that contain underground sources of drinking water. That includes all wells listed in paragraph 62-528.300(1)(e), F.A.C.

(b) These rules also include wells not covered in Class I or Class IV that inject natural and manmade radioactive materials, provided these concentrations do not exceed current drinking water standards in Chapter 62-550, F.A.C.

(2) Classification of Class V Wells. Various types of Class V wells that exist or may exist in Florida are grouped together in order to facilitate the determination of permitting, operating, and monitoring requirements for these wells. The groups are:

(a) Group 1 – Wells associated with thermal energy exchange processes, which include air conditioning return flow wells and cooling water return flow wells. Air conditioning return flow well and cooling water return flow wells may be part of an open-loop or closed-loop system, with or without additives.

(b) Group 2 – Recharger wells, saltwater intrusion barrier wells, connector wells, and subsidence control wells.

(c) Group 3 – Wells which are part of domestic wastewater treatment systems, including septic system wells receiving domestic wastewater other than those specifically excluded in paragraph 62-528.120(4)(b), F.A.C.

(d) Group 4 – Non-hazardous industrial and commercial disposal wells, which include laundry waste wells, dry wells, injection wells associated with aquifer remediation projects, desalination process concentrate wells, and nuclear disposal wells used to inject radioactive wastes, provided the concentrations of the waste do not exceed drinking water standards contained in Chapter 62-550, F.A.C.

(e) Group 5 – Class V wells associated with mining or mineral extraction operations, including wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts, sand backfill wells, and injection wells used for in situ recovery of phosphate, uraniferous sandstone, clay, sand, and other minerals extracted by the borehole slurry mining method.

(f) Group 6 – Lake level control and stormwater drainage wells.

(g) Group 7 – Wells associated with an aquifer storage and recovery system.

(h) Group 8 – Class V wells regulated under additional federal requirements contained in 40 C.F.R. 144.88 (2000) including large capacity cesspools and motor vehicle waste disposal wells.

(i) Group 9 – Class V wells such as exploratory wells, geothermal wells, experimental technology wells, swimming pool drainage wells and other wells not described in the other Class V groups above.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087 FS. History–New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.51, 17-28.510, 62-28.510, Amended 8-10-95, 6-24-97, 11-20-02.

62-528.601 Federal Regulations Applicable to Class V Wells.

(1) The federal regulations at 40 C.F.R. 144.88 (2000) are herein adopted by reference.

(2) For more information on Class V wells under the federal program, see 40 C.F.R. 144.80 through 40 C.F.R. 144.83 (2000), 40 C.F.R. 144.85 (2000), 40 C.F.R. 144.87 (2000), and 40 C.F.R. 144.89 (2000).

(3) For the purposes of this Rule 62-528.601, F.A.C., only and its applicability to Group 8 motor vehicle waste disposal wells, the entire state is a ground water protection area.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087 FS. History–New 11-20-02.

62-528.603 Exploratory Well Construction and Testing Permit.

(1) An exploratory well under the Underground Injection Control Program is drilled for the specific purpose of obtaining information to determine the feasibility of underground injection at the proposed site.

(2) A permit to construct an exploratory well shall be denied by the Department if the construction of the well itself will be a source of pollution as defined in Section 403.031, F.S. If the construction of the well itself is not a source of pollution, the permit shall be issued with conditions to meet the requirements of subsection (3) through (7) below.

(3) At a minimum, the exploratory well testing program shall be designed to determine the ground water quality profile, and make a preliminary assessment of the adequacy of the confining interval and injection zone potential.

(4) The information provided with the application to construct and test an exploratory well shall include:

(a) Plan of the injection project;

(b) Well inventory as described in paragraph 62-528.635(1)(d), F.A.C.;

(c) Proposed future use of the exploratory well;

(d) Drilling and testing plan for the exploratory well;

(e) Source and composition of any fluids to be used for injection testing; and

(f) Abandonment plan.

(5) Injection testing.

(a) The permittee may conduct injection tests under the exploratory well program not to exceed eight days, or such time requested by the permittee, not to endanger the underground sources of drinking water, and approved by the Department subject to the provisions of paragraph (b) below and in accordance with the process described in subsection 62-528.100(2), F.A.C.

(b) The exploratory well shall be constructed and tested so that it is in compliance with subsection 62-528.630(3), F.A.C. The use of treated or untreated municipal (domestic) or industrial effluent, or reverse osmosis concentrate is prohibited for injection testing conducted under the exploratory program.

(6) An exploratory well may be converted to a monitor well or plugged and abandoned if the permits have been obtained. An exploratory well shall be repermitted as a Class I test injection well or a Class V well if the permits have been obtained. If the applicant intends to apply for a permit to convert an exploratory well to a Class I test injection well, the exploratory well shall be constructed to meet the minimum Class I well construction standards contained in Parts II and III of this chapter. Tubing and packer or a fluid seal design shall not be required under the exploratory well permit for exploratory wells that are to be repermitted as non-municipal Class I wells.

(7) Under Section 403.091, F.S., the Department performs periodic inspections at certain stages of construction authorized by the exploratory well permit.

Rulemaking Authority 403.061, 403.087, 403.704, 403.721 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.088, 403.161, 403.702, 403.721 FS. History–New 8-10-95, Amended 6-24-97.

62-528.605 Well Construction Standards for Class V Wells.

(1) The variety of Class V wells and their uses dictate a variety of construction designs consistent with those uses, and precludes specific construction standards for each type of Class V well. However, a well shall be designed and constructed for its intended use, in accordance with good engineering practices, and the design and construction shall be approved by the Department through a permit.

(2) The Department shall apply any of the criteria for Class I wells (Rules 62-528.400 through 62-528.460, F.A.C.) to the permitting of Class V wells if the Department determines that without the application of Class I permitting criteria, the Class V well may cause or allow fluids to migrate into an underground source of drinking water which may cause a violation of a primary or

secondary drinking water standard contained in Chapter 62-550, F.A.C., or minimum criteria contained in Rule 62-520.400, F.A.C., or may cause fluids of significantly differing water quality to migrate between underground sources of drinking water. Class I injection well permitting standards shall not be required if the injection fluids meet the primary and secondary drinking water quality standards contained in Chapter 62-550, F.A.C., and the minimum criteria contained in Rule 62-520.400, F.A.C. The process for making the determination of which criteria apply is described in subsection 62-528.100(2), F.A.C.

(3) Class V wells shall be constructed so that their intended use does not violate the water quality standards of Chapter 62-520, F.A.C., at the point of discharge, except where specifically allowed in subsection 62-522.300(2), F.A.C., provided that the drinking water standards of 40 C.F.R. pt. 142 (1994) are met at the point of discharge for projects and facilities described in paragraphs 62-522.300(2)(a) and (b), F.A.C. Migration or mixing of fluids from aquifers of substantively different water quality (through the construction or use of a Class V well) shall be prevented by preserving the integrity of confining beds between these aquifers through cementing or other equally protective method acceptable to the Department.

(4) All Class V wells shall be constructed by a Florida licensed water well contractor.

(5) A well completion report defining details of construction and describing various formations penetrated by the well shall be forwarded to the Department within two days after completion of the drilling operation.

(6) Samples of formations penetrated shall be obtained during the construction of any major Class V well as defined in subsection 62-528.200(41), F.A.C., and shall be submitted for other Class V wells if needed to demonstrate whether the well will operate in compliance with Chapter 62-528, F.A.C. If required, samples shall be forwarded to the State Geologist, Florida Geological Survey, 903 West Tennessee Street, Tallahassee, Florida 32304, when drilling is completed.

(7) All drilled wells shall, at a minimum, meet the casing and cementing requirements for water well construction set forth in Chapter 62-532, F.A.C.

(8) Class V wells shall not be dynamited except with written permission from the Department.

(9) A test well or boring shall be filled with cement within five days after completion of the testing for which it was drilled. Such test wells or borings shall not be used as drainage wells unless a permit has been obtained in accordance with this chapter. Failure to obtain a permit prior to drilling of the well or boring shall bar future use except for testing purposes not connected with drainage in any manner.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 373.313, 373.323, 403.061, 403.062, 403.087 FS. History–New 4-1-82, Amended 5-8-85, Formerly 17-28.52, 17-28.520, 62-28.520, Amended 8-10-95, 6-24-97, 8-27-01.

62-528.610 Operation Requirements for Class V Wells.

(1) All Class V wells shall be used or operated in such a manner that they do not present a hazard to an underground source of drinking water.

(2) Domestic wastewater effluent or reclaimed water quality shall meet the criteria established in subparagraph 62-600.420(1)(d)2. and subsections 62-600.540(2) and (3), or Rule 62-610.660, F.A.C., as appropriate.

(3) Pretreatment for fluids injected through existing wells shall be performed if necessary to ensure that the injected fluid does not violate the applicable water quality standards in Chapter 62-520, F.A.C., and in Monroe County, Chapter 62-302, F.A.C., when required under subsection 62-528.630(7), F.A.C.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087 FS. History–New 4-1-82, Transferred from 17-4.27 and Amended 5-8-85, Formerly 17-28.53, 17-28.530, 62-28.530, Amended 8-10-95, 6-24-97.

62-528.615 Monitoring Requirements for Class V Wells.

(1) The need for monitoring shall be determined by the type of well, nature of the injected fluid, and water quality of the receiving and overlying aquifers.

(a) Except as provided in paragraph (b) below, the Department shall require monitoring for the following:

1. Group 1 wells operating on an open-loop system or with provisions for additives, Group 3, Group 4, Group 5, and Group 8 motor vehicle waste disposal wells;

2. Group 2 and Group 7 wells except when the injection fluids meet the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., and the minimum criteria contained in Rule 62-520.400, F.A.C.; and the injection fluids have been processed through a permitted drinking water treatment facility;

3. Group 6 and Group 9 wells, except swimming pool drainage wells, if injection is into an underground source of drinking

water; and

4. Any Class V well where either an exemption from water quality criteria under Rule 62-520.500 or 62-520.510, F.A.C., or an aquifer exemption under subsection 62-528.300(3), F.A.C., was required.

(b) The Department shall not require monitoring for the following:

1. Wells used to inject fluids that meet the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., and the minimum criteria contained in Rule 62-520.400, F.A.C., and that have been processed through a permitted drinking water treatment facility;

2. Air conditioning return-flow wells and swimming pool drainage wells receiving a general permit under Rule 62-528.705 or 62-528.710, F.A.C.; or

3. Other Class V wells that the Department determines through the process described in subsection 62-528.100(2), F.A.C., will provide reasonable assurance of compliance with this rule, without monitoring.

(2) The Department shall determine the frequency of monitoring based on the location of the well, the nature of the injected fluid and, where applicable, the requirements of Chapters 62-600 and 62-601, F.A.C. The monitoring parameters and frequency shall be addressed in the Class V permit or authorization to use a Class V well under subsection 62-528.635(4), F.A.C.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087 FS. History–New 4-1-82, Formerly 17-28.54, 17-28.540, 62-28.540, Amended 8-10-95, 6-24-97, 11-20-02.

62-528.620 Reporting Requirements for Class V Wells.

(1) Reporting requirements shall be determined by the type of well and nature of injected fluid. Where applicable, reporting shall be in accordance with Chapters 62-600 and 62-601, F.A.C.

(2) Reporting shall be required for Group 1 – cooling water return flow wells on an open-loop system, or with additives; Group 2; Group 3; Group 4; Group 5; Group 7; Group 8 motor vehicle waste disposal wells; and Group 9 except swimming pool drainage wells.

(3) For Group 6 wells, the permittee shall meet the reporting requirements of subsection (1) above, unless reasonable assurance is provided that underground sources of drinking water are being adequately protected.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087 FS. History–New 4-1-82, Formerly 17-28.55, 17-28.550, 62-28.550, Amended 8-10-95, 6-24-97, 11-20-02.

62-528.625 Plugging and Abandonment for Class V Wells.

(1) The Department shall order a Class V well plugged and abandoned when it no longer performs its intended purpose, or when it is determined that the presence of the well may cause or allow a violation of a primary or secondary drinking water standard contained in Chapter 62-550, F.A.C., or may otherwise adversely affect the health of persons.

(2) A plugging and abandonment plan shall be submitted to the Department with the construction permit application.

(3) Prior to abandoning Class V wells, the well shall be plugged with cement in a manner which will not allow movement of fluids between underground sources of drinking water. The proposed plugging method and type of cement shall be approved by the Department by inclusion as a condition of the permit. Placement of the cement shall be accomplished by any recognized method which is approved by the Department in the permit.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 403.021, 403.061, 403.062, 403.087 FS. History–New 4-1-82, Formerly 17-28.56, 17-28.560, 62-28.560, Amended 8-10-95.

62-528.630 General Permitting Requirements for Class V Wells.

(1) Except as provided in subsection (2) below, underground injection through a Class V well which begins operation after April 1, 1982, is prohibited except as authorized by permit. The construction or modification of any Class V well required to have a permit under Rules 62-528.600 through 62-528.645, F.A.C., is prohibited until the permit has been issued. In addition to the specific provisions of Rules 62-528.630 through 62-528.645, F.A.C., the applicable general permitting conditions of Rule 62-528.307 and the general provisions in Chapter 62-4, F.A.C., shall apply, unless superseded by specific requirements for underground injection control in Chapter 62-528, F.A.C.

(2) The following Class V well types are exempt from the permitting requirements of Rule 62-528.635, F.A.C., but shall be

authorized in accordance with paragraphs (a) through (c) below.

(a) A general permit shall be granted under Rule 62-528.705 or 62-528.710, F.A.C., as appropriate, for:

1. Closed-loop air conditioning return flow wells and other noncontact closed-loop thermal exchange system wells with no provision for additives serving multifamily residential units or business establishments.

2. Swimming pool drainage wells serving multifamily or public swimming pools.

(b) Swimming pool drainage wells and closed-loop air conditioning return flow wells with no provisions for additives serving a single-family residential unit are exempt from the permitting requirements of Chapter 62-528, F.A.C., provided the well is constructed in accordance with the requirements of Chapter 62-532, F.A.C., and the following information is submitted to the Department for inventory purposes:

1. Name and address of well owner;

2. Name and address of well driller;

3. Well location;

4. Well depth;

5. Cased depth;

6. Casing material;

7. Cemented interval; and

8. For air conditioning return flow well systems only, the depth and construction of supply wells for the air conditioning system.

(c) Class V wells associated with aquifer remediation projects shall be authorized under the provisions of a remedial action plan or other enforceable mechanism, provided the requirements of the rules governing the remediation project, as well as the construction, operation, and monitoring requirements of this chapter are met. The following inventory information shall be submitted to the Department for inventory purposes:

1. Name and address of facility where the remediation project is taking place;

2. Name and address of the owner of the facility where the remediation project is taking place;

3. Name and address of water well contractor;

4. Location of all injection wells and associated monitor wells;

5. Construction details for all injection and monitor wells including:

a. Total depth and cased depth, or screened interval (as appropriate),

b. Casing material, and

c. Cemented interval; and

6. A brief description of the remediation project.

(3) No underground injection control authorization by permit or rule shall be allowed where a Class V well causes or allows movement of fluid containing any contaminant into underground sources of drinking water, and the presence of that contaminant may cause a violation of any primary drinking water regulation under Chapter 403, F.S., and Chapter 62-550, F.A.C., or which may adversely affect the health of persons.

(4) If at any time the Department learns that an existing Class V well may cause a violation of primary drinking water standards under Chapter 62-550, F.A.C., the Department shall, as determined by following the process in subsection 62-528.100(2), F.A.C.:

(a) Require a permit for such Class V well;

(b) Order the injector to take such actions needed to prevent the violation, including, when necessary, closure of the injection well.

(c) Require monitoring to demonstrate that the water quality criteria in Rule 62-520.420, F.A.C., are not violated; or

(d) Take enforcement action.

(5) Whenever the Department learns that a Class V well may be otherwise adversely affecting the health of persons, the Department shall prescribe action necessary to prevent the adverse effect, including any action authorized under subsection (4). The process for determining these actions is described in subsection 62-528.100(2), F.A.C.

(6) Notwithstanding any other provision of this chapter, the Department shall take immediate action upon receipt of information that a contaminant which is present or is likely to enter a public water system may present an imminent and substantial endangerment to the health of persons.

(7) All Class V Group 3 wells designed to inject domestic wastewater in Monroe County shall be required as part of the operation permit application to provide reasonable assurance that operation of the well will not cause or contribute to a violation of

surface water standards as defined in Chapter 62-302, F.A.C.

(8) Inventory Requirements.

(a) The owner or operator of any Class V well shall notify the Department of the existence of any well meeting the definitions of Class V under his control, and submit the inventory information required in subsection (9) below.

(b) The owner or operator of a cooling water return flow well, air conditioning return flow well, or swimming pool drainage well authorized under paragraph 62-528.630(2)(b), F.A.C., shall submit the inventory information required under that paragraph in lieu of that required by subsection (10) below.

(c) If the owner or operator of any Class V well authorized under this Section or paragraph 62-528.630(2)(b), F.A.C., fails to comply with the inventory requirements of this Section or paragraph 62-528.630(2)(b), F.A.C., that authorization shall automatically terminate.

(9) As part of the inventory, the Department shall require the following information:

(a) Facility name and location, including a plot plan showing location of well(s);

(b) Name and address of legal contact;

(c) Ownership of facility;

(d) Nature and type of injection wells, including installed dimensions of wells and construction materials;

(e) Operating status of injection wells, including history of injection;

(f) Volume of injected fluid;

(g) Nature of injected fluid;

(h) Description of injection system, including monitoring well(s), if any.

(10) A group of similarly designed injection wells within the same wellfield, owned and operated by the same applicant serving the same purpose may be permitted as a system rather than as individual wells; however, a separate permit fee as specified in paragraph 62-4.050(4)(m), F.A.C., shall be assessed for each well.

(11) At least 30 days prior to sale or legal transfer of a Class V well, the new owner shall notify the Department. Until such time as notice of change in ownership is submitted, the owner reflected on the permit/clearance shall be responsible for the operation of the well and for damages resulting from improper operation of the wells.

(12) A separate underground injection control permit shall be obtained for a Class V well which is constructed and operated as part of a fluid treatment or disposal system permitted by the Department.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 373.313, 403.021, 403.061, 403.062, 403.087, 403.088, 403.161 FS. History–New 4-1-82, Amended 5-8-85, Formerly 17-28.61, 17-28.610, 62-28.610, 62-528.610, Amended 8-10-95, 6-24-97, 7-15-99, 11-20-02.

62-528.635 Construction/Clearance Permit for Class V Wells.

(1) All owners or operators of Class V wells shall obtain a two-part Construction/Clearance Permit, except as provided in subsection 62-528.630(2), F.A.C. The applicant shall submit to the Department the following information before receiving permission to construct:

(a) Facility name and location;

(b) Name, address, and signature of owner (or authorized representative) of facility;

(c) Name, address, license number, and signature of Florida licensed water well contractor;

(d) Well location and depth, and casing diameter and depth for all water supply wells on the applicant's property, and well location for all water supply wells of public record within a one-half mile radius of the proposed well;

(e) Description and use of proposed injection system, including type and construction of injection wells, physical and chemical analyses, estimated quantity, pertinent bacteriological analyses of injected fluid, and any proposed pretreatment;

(f) Proposed drilling and testing plan for any exploratory borehole or exploratory well proposed for the purpose of determining feasibility of Class V well injection at that site;

(g) If the flow of surface or other waters is directed by ditches or other artificial methods to the well, a delineation of the area drained by these features shall be provided.

(2) When site-specific conditions indicate that there is a threat to an underground source of drinking water, the applicant shall submit to the Department the following information before receiving permission to construct:

(a) Completed report of inspection by local programs or water management districts which have agreements with the Department.

(b) Bacteriological examination of the injection fluid, on-site monitor wells, and the nearest down-gradient domestic or public water supply well within a one-half mile radius that are drilled to the same formation(s) as the proposed Class V well. The bacteriological survey shall be conducted as follows:

1. Samples shall be collected from each well for the first three days of each week for four weeks.

2. Duplicate samples shall be collected in each case after the well has been pumped at least twenty minutes. Whenever a drainage well installation is approved following preliminary bacteriological survey of neighboring water supply wells, an identical survey of the same well shall be conducted following active use of the drainage well.

(c) If a drainage well or drainage structure will present a possible pollution hazard to an underground source of drinking water, additional data shall be required.

(3) Upon completion of the well construction, the water well contractor shall certify with the Department that the well has been completed in accordance with the approved construction plan, and submit any other additional information required by the construction permit before the well can be put into service.

(4) If the applicant demonstrates that the operation of the well will not adversely impact an underground source of drinking water, the Department shall issue an authorization to use a Class V well, which is non-renewable and non-expiring for the Class V groups or well types listed in paragraph (a) through (d) below. The authorization shall contain operating and reporting requirements. Other Class V wells not specifically exempted under paragraph 62-528.640(1)(c), F.A.C., shall obtain an operation permit before injecting fluids into the well.

(a) Group 1 wells on a closed-loop system with no provisions for additives, except those Group 1 wells receiving a general permit under Rule 62-528.705, F.A.C., or exempt from permitting under paragraph 62-528.630(2)(b), F.A.C.;

(b) Group 2, Group 7, and Group 9 wells (except swimming pool drainage wells) when the fluids being injected meet the primary and secondary drinking water quality standards contained in Chapter 62-550, F.A.C., and the minimum criteria contained in Rule 62-520.400, F.A.C.;

(c) Group 5 sand backfill wells; and

(d) Group 6 wells unless injection is into an underground source of drinking water.

(5) The permittee shall perform initial or periodic testing of the Class V well if site-specific factors or operational testing indicate that there is a threat to underground sources of drinking water.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 373.313, 403.021, 403.061, 403.062, 403.087, 403.088, 403.161 FS. History–New 4-1-82, Amended 8-30-82, Formerly 17-4.27(2) and Amended 5-8-85, Formerly 17-28.62, 17-28.620, 62-28.620, Amended 8-10-95, 6-24-97, 11-20-02.

62-528.640 Operation Permit for Class V Wells.

(1) In addition to a Construction/Clearance Permit, the owner or operator of these wells shall obtain an operation permit as required under this subsection.

(a) The following Class V groups and well types shall obtain an operation permit:

1. Cooling water return flow wells using an open-looped system, or any system using additives;

2. Groups 2, 7, and 8 wells, except swimming pool drainage wells, unless the fluids being injected meet the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., and minimum criteria contained in Rule 62-520.400, F.A.C.;

3. Group 3 wells;

4. Group 4 wells;

5. Group 5 wells, except sand backfill wells; and

6. Group 6 wells if injection is into an underground source of drinking water.

(b) In addition to the Class V groups and well types listed in paragraph (a) above which are required to obtain an operation permit, the Department shall require the owner or operator of any Class V group or well type to obtain an operation permit if the Department determines that the operation of a Class V well has the potential to cause or allow fluid movement into an underground source of drinking water which may cause a violation of a primary or secondary drinking water standard contained in Chapter 62-550, F.A.C., or minimum criteria contained in Rule 62-520.400, F.A.C. In making this determination the Department shall consider the following:

1. Quality of water in all aquifers penetrated by the well;

2. Quality of the injection fluid;

3. Volume of fluid injected;

4. Existing and potential uses of aquifer within the area which may be affected by the well; and

5. Well construction.

(c) Operation permits are not required for Group 1 wells and swimming pool drainage wells meeting the requirements for a general permit under Rules 62-528.705 and 62-528.710, F.A.C., aquifer remediation wells authorized under the provisions of a remedial action plan as allowed under paragraph 62-528.630(2)(c), F.A.C., and Group 7 wells when the injection fluid meets the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., and the minimum criteria contained in Rule 62-520.400, F.A.C., and have been processed through a permitted drinking water treatment facility.

(2) Operation permits shall be issued for a period not to exceed five years.

(3) At least 60 days before expiration of an operation permit, the owner or operator shall apply for renewal of his permit.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 373.313, 403.021, 403.061, 403.062, 403.087, 403.088, 403.161 FS. History–New 4-1-82, Amended 5-8-85, Formerly 17-28.63, 17-28.630, 62-28.630, Amended 8-10-95, 6-24-97.

62-528.645 Plugging and Abandonment Permit for Class V Wells.

(1) The owner or operator of any Class V well shall apply for a plugging and abandonment permit when the well is no longer used or usable for its intended purpose or other purpose as approved by the Department. The Application shall include the proposed plugging plan and justification for abandonment. Plugging shall be performed by a Florida licensed water well contractor.

(2) Upon completion of plugging and abandonment procedures, the engineer of record shall provide certification of completion in accordance with the plans and specifications.

(3) The owner or operator of any Class V well shall provide evidence, such as a sealed copy of certification from the county clerk, that a surveyor's plot of the location of the abandoned well has been recorded in the county courthouse property records.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.308, 373.313, 403.021, 403.061, 403.062, 403.087, 403.088, 403.161 FS. History–New 4-1-82, Amended 5-8-85, Formerly 17-28.64, 17-28.640, 62-28.640, Amended 8-10-95.

62-528.705 General Permit for the Construction of a Closed-Loop Air Conditioning Return Flow Well.

(1) A general permit is hereby granted for the construction of a closed-loop air conditioning return flow well or noncontact, closed-loop thermal exchange system well, with no provision for additives, described in subparagraph 62-528.630(2)(a)1., F.A.C., that has been designed in accordance with the standards and criteria set forth in Rule 62-528.605, F.A.C., provided that notice to the Department under subsection 62-4.530(1), F.A.C., is submitted on Form 62-528.900(7).

(2) This general permit is subject to the general conditions of Rule 62-4.540, F.A.C., and the following specific conditions:

(a) Within thirty days of completion of construction, the permittee or his engineer of record shall certify to the Department that the permitted construction is complete and that it was done in accordance with the plans submitted to the Department.

(b) This general permit is limited to closed-loop systems as defined in sub-subparagraph 62-528.300(1)(e)1.a., F.A.C., with no provisions for additives.

(3) Subsections 62-528.630(3) through (6), F.A.C., apply to wells operating under a general permit.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.309, 373.313, 403.021, 403.031, 403.062, 403.087, 403.813 FS. History– New 5-8-85, Formerly 17-4.73, 17-4.730, 17-28.801, 62-28.801, Amended 8-10-95.

62-528.710 General Permit for the Construction of a Swimming Pool Drainage Well.

(1) A general permit is hereby granted for construction of a swimming pool drainage well that has been designed in accordance with the standards and criteria set forth in Rule 62-528.605, F.A.C., provided that notice to the Department under subsection 62-4.530(1), F.A.C., is submitted on Form 62-528.900(9).

(2) This general permit is subject to the general conditions of Rule 62-4.540, F.A.C., and the condition that within thirty days after completion of construction, the permittee or his engineer of record shall certify to the Department that the permitted construction is complete and that it was done in accordance with the plans submitted to the Department.

(3) Subsections 62-528.630(3) through (6), F.A.C., apply to swimming pool drainage wells operating under a general permit.

Rulemaking Authority 373.309, 403.061, 403.087 FS. Law Implemented 373.309, 373.313, 403.021, 403.031, 403.062, 403.087, 403.813 FS.

History– New 5-8-85, Formerly 17-4.74, 17-4.740, 17-28.802, 62-28.802, Amended 8-10-95, 6-24-97.

62-528.900 Forms for Underground Injection Control.

The forms used by the Department in the Underground Injection Control Program are adopted and incorporated by reference in this section. The form is listed by rule number, which is also the form number, and with the effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Water Facilities, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(1) Application to Construct/Operate/Abandon Class I, III, or V Injection Well Systems, 6-24-97.

(2) Certification of Plugging Completion Class I, III, or V Well, 8-10-95.

(3) Construction/Clearance Permit Application for Class V Well, 8-10-95.

(4) Certification of Class V Well Construction Completion, 8-10-95.

(5) Authorization for Class V Well Use, 8-10-95.

(6) Application for Class V Well Plugging and Abandonment Permit, 8-10-95.

(7) General Permit Form for Closed-Loop Air Conditioning Return Flow Class V Injection Well, 8-10-95.

(8) Notification to the Florida Department of Environmental Protection of Class V Well Ownership, 8-10-95.

(9) Inventory Form for Single-Family Closed-Loop Air Conditioning Return Flow and Swimming Pool Drainage Class V Injection Wells, 8-10-95.

(10) Certification of Monitor Well Completion.

Rulemaking Authority 373.309, 403.061, 403.062, 403.087 FS. Law Implemented 373.308, 403.021, 403.061 FS. History–New 11-30-82, Amended 5-8-85, Formerly 17-1.209, 62-28.900, Amended 8-10-95, 6-24-97.

CHAPTER 62-531
WATER WELL CONTRACTOR LICENSING REQUIREMENTS

62-531.200 Definitions Used in Water Well Contractor Rules.

The following words, when used in this Chapter, shall have the following meanings, except where the context clearly indicates a different meaning:

(1) "Abandonment of Water Wells" means the act of plugging a water well in accordance with Department and District rules.

(2) "Administrator" means an entity awarded a contract by the Florida Department of Environmental Protection to implement a program of approved coursework for water well contractor licensure and license renewal.

(3) "Approved Coursework" means Administrator or Department-approved training or instruction required for licensure and license renewal.

(4) "Continuing Education Credit" or "CEC" means attendance and completion of one hour (at least fifty minutes) of approved coursework or instruction that has been converted to a CEC by the Administrator or the Department.

(5) "Coursework Hour" means one hour (at least fifty minutes) of training or instruction.

(6) "Department" means the State of Florida Department of Environmental Protection.

(7) "District" means a Water Management District created pursuant to Chapter 373, F.S.

(8) "Drilling Equipment" means a drilling rig consisting of the machinery necessary to construct a well.

(9) "Construction of Water Wells" is defined in Section 373.303, F.S.

(10) "Repair" is defined in Section 373.303, F.S.

(11) "Water Well Contractor" is defined in Section 373.303, F.S.

Rulemaking Authority 373.043, 373.309, 373.337 FS. Law Implemented 373.308, 373.323, 373.324, 373.326, 373.329, 373.333 FS. History–New 5-25-89, Formerly 17-531.200, Amended 7-17-03, 6-22-14.

62-531.300 Application Requirements for Water Well Contractors.

(1) The Water Management Districts (Districts) shall accept applications for licensing as a water well contractor from any person who is at least 18 years of age, has knowledge of those rules adopted by the Department and the District which deal with the regulation of water wells, has at least two years experience in constructing, repairing, or abandoning wells, and has taken and completed a minimum of 12 approved coursework hours earned in the two-year period directly preceding the last day (July 31st) of the biennial renewal cycle. In addition, each application shall:

(a) Be submitted on forms provided by the District and delivered by mail, hand delivery, or electronic transmittal to the District and shall be accompanied by a nonrefundable application fee as set forth in Rule 62-531.340, F.A.C.

(b) Contain proof of experience as provided in subsection (7) below.

(c) Include copies of certificates of completion of approved coursework. Confirmation of approved coursework completion will be accepted from the Department or the Administrator, if available, in lieu of certificates of completion.

(d) Include a request for the water well contractor examination described by Rule 62-531.350, F.A.C.

(2) Approved coursework and CECs shall be governed by the requirements in the Water Well Contractor Continuing Education Program Manual effective date 6-22-14, https://www.flrules.org/gateway/reference.asp?NO=Ref-03954, hereby adopted and incorporated by reference, and requires the use of the following forms, which are also adopted and incorporated by reference:

(a) Coursework Certificate of Attendance and Evaluation, Florida Water Well Contractor Continuing Education Program, Form

1, effective 6-22-14, http://www.flrules.org/Gateway/reference.asp?No=Ref-04128,

(b) Florida Water Well Contractor Continuing Education Program, Certificate of Completion, Form 2, effective 6-22-14, http://www.flrules.org/Gateway/reference.asp?No=Ref-04129,

(c) Application for Continuing Education Coursework Approval, Florida Water Well Contractor Continuing Education Program, Form 3, effective 6-22-14, http://www.flrules.org/Gateway/reference.asp?No=Ref-04130, and

(d) Application for Continuing Education Course Provider, Florida Water Well Contractor Continuing Education Program, Form 4, effective 6-22-14, http://www.flrules.org/Gateway/reference.asp?No=Ref-04131.

Copies of the Water Well Contractor Continuing Education Program Manual and the forms referenced therein are available on the Department's website at www.dep.state.fl.us or by writing the Department at 2600 Blair Stone Road, MS 3580, Tallahassee, FL 32399-2400.

(3) Completion of 12 approved coursework hours shall be required for licensure. A minimum of six approved coursework hours must be specifically related and relevant to water well construction industry drilling technologies, methodologies and practices and/or applicable State of Florida water well licensing, permitting and construction statutes and rules. No more than six approved coursework hours may be specifically related and relevant to water well contruction industry health and safety requirements, practices and procedures and/or business management and accounting practices and procedures. Completion of approved coursework hours can be converted one time either to CECs for contractor licensing or for contractor license point reduction, but not both.

(4) The District shall not schedule an applicant to take the required examination until his or her application has been reviewed and the applicant has met all other licensing conditions of this Chapter. The applicant shall be provided three opportunities to take and pass the examination within 12 months after the applicant has become eligible to take the exam, otherwise the applicant must submit a new application for licensure and fee to the District.

(5) A license shall not be issued until the applicant successfully passes the required examination.

(6) A license issued by any Water Management District shall be valid in every Water Management District in the state.

(7) As set forth in Section 373.323(3), F.S., satisfactory proof of two years experience in the construction, repair, or abandonment of water wells shall be demonstrated by providing the following:

(a) Evidence of the length of time the applicant has been engaged in the business of the construction, repair, or abandonment of water wells as a major activity, as attested to by a letter from three of the following persons:

1. A water well contractor;

2. A water well driller;

3. A water well parts and equipment vendor; or

4. A water well inspector employed by a governmental agency.

(b) A list of at least ten water wells that the applicant has constructed, repaired, or abandoned within the preceding five years. Of these wells, at least seven must have been constructed, as defined in Section 373.303(2), F.S., by the applicant. The list shall also include information relating to the 10 water wells including:

1. The name and address of the owner or owners of each well;

2. The location, primary use, and approximate depth and diameter of each well that the applicant has constructed, repaired, or abandoned; and

3. The approximate date the construction, repair, or abandonment of each well was completed.

(8) If at any time after application and before licensure, information provided in the application changes, including the applicant's address or principal place of business, the applicant shall update his or her application with any such changes within 30 days of the change or upon receipt of the license, whichever is sooner.

Rulemaking Authority 373.043, 373.309, 373.337 FS. Law Implemented 287.0571, 373.323, 373.326, 373.329 FS. History–New 8-18-73, Amended 10-9-84, Formerly 17-20.02, Amended 6-16-86, Formerly 17-20.020, Amended 5-25-89, Formerly 17-531.300, Amended 7-17-03, 11-25-07, 6-22-14.

62-531.330 Water Well Contractor License Renewal.

(1) Licenses issued pursuant to this chapter shall not be transferable and shall expire on July 31st of each odd numbered year of the biennial renewal cycle. A license may be renewed without examination for an ensuing two years by making application to the licensing District not later than the expiration date of the license and paying the biennial renewal fee. A contractor shall include his

or her current address in each license renewal application. Such application shall extend the validity of the current active license until the District takes final agency action on the license renewal application.

(2) Twelve CECs shall be required for renewal of a license. A minimum of six approved coursework hours for CE credit must be specifically related and relevant to water well construction industry drilling technologies, methodologies and practices and/or applicable State of Florida water well licensing, permitting and construction statutes and rules. No more than six approved coursework hours for CEC may be specifically related and relevant to water well construction industry health and safety requirements, practices and procedures and/or business management and accounting practices and procedures.

(3) Water well contractor licenses shall be renewed only after the license holder has completed twelve approved coursework hours for CEC earned in the two-year period directly preceding the last day (July 31st) of the biennial renewal cycle. However, if a water well contractor has received his or her first license within 180 days before the end of the biennium renewal of licenses, the continuing education requirements shall be waived for the licensee's first renewal cycle. Completion of approved coursework hours can be converted one time to either CECs for contractor licensing or for contractor license point reduction, but not both.

(4) Each application for license renewal shall include copies of certificates of completion of CEUs. Confirmation of approved coursework completion will be accepted from the Department or the Administrator, if available, in lieu of certificates of completion.

(5) A Florida licensed water well contractor who teaches approved coursework shall receive one CEC for each coursework hour of instruction.

(6) If a license is not renewed pursuant to subsection (1) before July 31 of each odd numbered year, the current license shall automatically revert to inactive status and may be renewed only in accordance with the requirements in Rule 62-531.360, F.A.C.

(7) Notwithstanding the renewal requirements of this chapter and Section 373.324(3), F.S., and those in Section 250.4815, F.S., for members of the Florida National Guard and the United States Armed Forces Reserves, any active water well contractor license issued under this chapter to a service member as defined in Section 250.01, F.S., or his or her spouse, both of whom reside in Florida, shall not become inactive while the service member is serving on military orders that take him or her over 35 miles from his or her residence and shall be considered an active license for up to 180 days after the service member returns to his or her Florida residence. If the license renewal requirements are met within the 180-day extension period, the service member or his or her spouse shall not be charged any additional costs, including late fees, above the normal license fees. This subsection does not waive renewal requirements such as registering, continuing education, and all associated fees. The service member must present to the water management district issuing the license a copy of his or her official military orders or a written verification from the member's commanding officer before the end of the 180-day period in order to qualify for the extension.

(8) No application for a renewal shall be granted if the applicant's license is suspended or revoked pursuant to Rule 62-531.450, F.A.C., until the period for such suspension or revocation has expired and the applicant is in compliance with any outstanding corrective actions, orders, or payment of any fines ordered by the District or delegated permitting authority.

(9) If at any time during licensure the contractor changes his or her residence or principal place of business, which ever was initially submitted to the licensing District, the contractor shall notify the licensing District within 30 days of any change of address..

Rulemaking Authority 373.043, 373.309, 373.337 FS. Law Implemented 373.323, 373.324, 373.326, 373.329 FS. History–New 5-25-89, Formerly 17-531.330, Amended 7-17-03, 11-25-07, 6-22-14.

62-531.340 Water Well Contractor Fees.

(1) The following fees are required for water well contractor license applications, biennial renewals, and late renewals:

(a) New License: A fee of $150 shall accompany each new application for a license.

(b) Biennial License Renewal: A fee of $50 shall accompany each application for a renewal of license.

(c) Late License Renewal: After July 31 of each odd numbered year, in addition to the normal license renewal fee, a late fee of $75 shall accompany each application for renewal of a license which has been inactive for one year or less.

(d) Administrative Fee for CEUs for License Renewal: A fee of $14 per CEU shall be submitted to the Administrator with the documentation of course completion.

(2) Regular employees of a political subdivision or governmental entity engaged in water well drilling shall be licensed in accordance with this chapter, but shall be exempt from paying the fees required in this chapter.

Rulemaking Authority 373.043, 373.309 FS. Law Implemented 373.323, 373.324, 373.329 FS. History–New 5-25-89, Formerly 17-531.340, Amended 11-25-07.

62-531.350 Water Well Contractor Examinations.

(1) Water well contractor examinations shall be written, comprehensive examinations that are standardized statewide. Upon request, however, the exam can be administered orally by the District. The standardized examinations shall be prepared by the Department, in consultation with the Districts and representatives of the water well contracting industry. The examinations shall be designed to determine the applicant's knowledge of applicable rules; ability to construct, repair, and abandon a well; and ability to supervise, direct, manage, and control the contracting activities of the water well contracting business.

(2) A grade on the examination of seventy percent or more shall be passing. Results of the examination shall be reported as either passing or failing. Each applicant is entitled to review the graded examination in the District office under staff supervision. Graded examinations are exempt from public disclosure pursuant to Section 119.071(1)(a), F.S., and shall not be revealed to persons other than the applicant who completed the examination. Examinations or copies of examinations shall not be released to applicants or to the public and shall be retained by the Districts in a secured location.

(3) Examinations shall be given by the District monthly as scheduled by the District.

(4) Examinations shall be conducted at the Water Management District in which the applicant resides or in which his principal place of business is located. Examinations for out of state applicants shall be conducted in the District in which most of the business of the applicant will take place.

Rulemaking Authority 373.043, 373.308, 373.309 FS. Law Implemented 373.323, 373.329 FS. History–New 8-18-73, Amended 10-9-84, Formerly 17-20.03, 17-20.030, Amended 5-25-89, Formerly 17-531.350, Amended 11-25-07, 6-22-14.

62-531.360 Inactive Status of Water Well Contractor License.

(1) A license not renewed before July 31 of each odd numbered year shall automatically revert to inactive status. Such license may be reactivated only if the licensee meets the requirements for reactivation in subsection (3) below.

(2) At least sixty days before the automatic reversion of a license to inactive status, the District which issued the license shall mail a notice of reversion to the last known address of the licensee as it appears on the District records. If the notice is mailed less than sixty days before the automatic reversion, the licensee shall still have sixty days in which to reactivate the license.

(3) A license which has become inactive pursuant to subsection (1) above, may be renewed or reactivated upon application to the District as follows:

(a) A license which has been inactive for one year or less after July 31 of each odd numbered year may be renewed pursuant to Rule 62-531.330, F.A.C., upon application to the District and upon payment of the renewal and late fees established in Rule 62-531.340, F.A.C. Such renewed license shall expire on July 31 of the next odd numbered year.

(b) A license which has been inactive for more than one year after July 31 of each odd numbered year may be reactivated upon application to the District for licensure pursuant to Rule 62-531.300, F.A.C.

Rulemaking Authority 373.043, 373.309 FS. Law Implemented 373.325 FS. History–New 5-25-89, Formerly 17-531.360.

62-531.380 Display of Water Well Contractor License Number.

(1) The District shall assign each water well contractor a unique, permanent license number, and shall issue a certificate with that license number to the water well contractor. License numbers are not transferable and shall not be used by another water well contractor.

(2) The license number shall be continuously displayed in a conspicuous place on both sides of each piece of drilling equipment owned, leased, or operated by the contractor. The number shall be easily readable by a person with normal vision and shall be in a color which will contrast with its background. The number shall be presented in numerals not less than two inches high.

Rulemaking Authority 373.043, 373.309, 373.337 FS. Law Implemented 373.323, 373.326, 373.329 FS. History–New 8-18-73, Amended 10-9-84, Formerly 17-20.06, 17-20.060, Amended 5-25-89, Formerly 17-531.380, Amended 6-22-14.

62-531.390 Exemptions from Water Well Contractor Licensing Requirement.

Rulemaking Authority 373.043, 373.309 FS. Law Implemented 373.326 FS. History–New 5-25-89, Formerly 17-531.390, Repealed 2-16-12.

62-531.400 Procedures for Disciplinary Actions.

Rulemaking Authority 373.043, 373.309 FS. Law Implemented 120.60, 373.306, 373.309, 373.323, 373.333 FS. History–New 8-18-73, Amended 10-9-84, Formerly 17-20.05, 17-20.050, Amended 5-25-89, Formerly 17-531.400, Repealed 6-22-14.

62-531.450 Unlawful Acts, Grounds for Disciplinary Actions, and Penalties.

(1) It is unlawful for any person to commit a violation specifically enumerated in Sections 373.336(1), F.S. When the Department, Districts, or delegated permitting authority finds a person has violated rules of the Department or Water Management District, or Part III, Chapter 373, F.S., the person shall be subject to an order imposing one or more of the penalties and corrective actions established in the Water Well Construction Disciplinary Guidelines and Citations Dictionary, effective date 6-22-14, adopted and incorporated by reference herein. A copy of the Citations Dictionary is available at the Department's website at: www.dep.state.fl.us or by writing the Department at 2600 Blair Stone Road, MS 3580, Tallahassee, FL 32311-2400, http://www.flrules.org/Gateway/reference.asp?No=Ref-03955.

(2) It is unlawful for a business entity to commit a violation specifically enumerated in Section 373.336(2), F.S. When the Department, Districts, or delegated permitting authority finds a business entity has violated rules of the Department or Water Management District, or Part III, Chapter 373, F.S., the person shall be subject to an order imposing one or more of the penalties and corrective actions established in the Water Well Construction Disciplinary Guidelines and Citations Dictionary, effective date 6-22-14.

(3) It shall be a violation of this rule for any licensed contractor, or any individual attempting to obtain a license or having a revoked, suspended, or inactive license, to commit one of the grounds for disciplinary action specifically enumerated in Section 373.333, F.S. When the Department, Districts, or delegated permitting authority finds a licensed contractor, or any individual attempting to obtain a license or having a revoked, suspended, or inactive license has violated rules of the Department or Water Management District, or Part III, Chapter 373, F.S., the person shall be subject to an order imposing one or more of the fines and diciplinary actions established in the Water Well Construction Disciplinary Guidelines and Citations Dictionary, effective date 6-22-14.

(4) The Department, Districts or delegated permitting authorities shall provide for disciplinary action in accordance with the Water Well Construction Disciplinary Guidelines and Citations Dictionary, effective date 6-22-14, and as provided for in Sections 373.333 and 373.336, F.S.

Rulemaking Authority 373.043, 373.308, 373.309 FS. Law Implemented 373.306, 373.309, 373.316, 373.319, 373.333, 373.335, 373.336 FS. History–New 8-18-73, Amended 10-9-84, Formerly 17-20.09, 17-20.090, Amended 5-25-89, 12-2-92, Formerly 17-531.450, Amended 12-25-02, 11-25-07, 6-22-14.

CHAPTER 62-532
WATER WELL PERMITTING AND CONSTRUCTION REQUIREMENTS

62-532.200 Definitions for Water Well Permitting and Construction.

The following words and phrases, when used in this chapter, shall have the following meaning, except where the context clearly indicates a different meaning:

(1) "Abandoned Well" means a well the use of which has been permanently discontinued or which is in such a state of disrepair that it cannot be used for its intended purpose or for observation purposes.

(2) "Annulus" or "Annular Space" means any artificially created void existing between a well casing or liner pipe and a bore hole wall or between two casings or between tubing and casing or liner pipe.

(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) "Bentonite" means a pumpable grouting material used for plugging or sealing water wells, consisting of a high solid sodium montmorillonite. The grout shall yield solids ranging from 20 to 30 percent, with a minimum density equal to or greater than 9.4 pounds per gallon, and a permeability of approximately 1x10-7 centimeters per second or less, or shall be dry non-treated, high swelling sodium montmorillonite. High swelling is defined as having a minimum swell index of 18 cubic centimeters as determined by ASTM standard D-5890-95.

(5) "Bottled water" means water that is intended for human consumption and that is sealed in bottles or other containers.

(6) "Bottled water plant" means a food establishment, regulated by the Florida Department of Agriculture and Consumer Services, in which bottled water is prepared for sale.

(7) "Construction of Water Wells" means all parts and acts necessary to obtain ground water by wells, including the location and excavation of the well, but excluding the installation of pumps and pumping equipment.

(8) "Department" means the Department of Environmental Protection.

(9) "Dewatering" means the use of wells or other such equipment to temporarily lower a water level as may be necessary during construction activities.

(10) "District" means a water management district created pursuant to Chapter 373, F.S.

(11) "Drive Shoe" means any device specifically designed, fabricated, and installed to protect the bottom end of a water well casing or liner pipe from collapse or other damage while the casing or liner pipe is being driven into place in a water well.

(12) "Driven Casing" means casing that has been installed by driving where the bore hole is equal to or smaller in diameter than the nominal outside diameter of the casing.

(13) "Geothermal well" means a type of well used for the purpose of developing ground water as a medium for thermal heat exchange.

(14) "Limited use commercial public water system" means a public water system not covered or included in the Florida Safe Drinking Water Act, which serves one or more nonresidential establishments and provides piped water.

(15) "Limited use community public water system" means a public water system not covered or included in the Florida Safe Drinking Water Act, which serves five or more private residences or two or more rental residences, and provides piped water.

(16) "Liner" means a metallic or nonmetallic pipe which is installed either within the outer casing to improve, repair, or protect the outer casing or below the outer casing to seal off caving material which may be encountered in the open hole of the well.

(17) "Multifamily water system" means a water system that provides piped water for three to four residences, one of which may

be a rental residence.

(18) "Neat Cement Grout" means a mixture of water and Portland cement (American Concrete Institute Type I, Type II, or Type III); or a mixture of water and Portland cement of a type or kind approved by the permitting authority; or a mixture of water, Portland cement of a type or kind approved by the permitting authority, and an amount of those additives approved for use in cement grouts and approved by the permitting authority.

(19) "Nominal" means those standard sizes of pipe from one-eighth inch to 12 inches, specified on the inside diameter, which may be less than or greater than the number indicated. When referred to the grouting annulus, nominal means either the available void thickness between telescoped casing varying less than 0.20 inches below standard where one inch of grout is required and 0.35 inches below standard where two inches of grout is required, or the average available void thickness between the borehole and outside wall of the casing.

(20) "Permitting Authority" means the Department or any district, or political subdivision that has been delegated the authority to issue permits under Chapter 373, Part III, F.S.

(21) "Potable water" means water that is satisfactory for human consumption, dermal contact, culinary purposes, or dishwashing.

(22) "Private water system" means a water system that provides piped water to one or two residences, one of which may be a rental residence.

(23) "Public water system" means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

(24) "Repair" means any action which involves the physical alteration or replacement of any part of a well, but does not include the alteration or replacement of any portion of a well which is above ground surface.

(25) "Telescoping Casing" means an interior casing extending below and sealed within an exterior casing.

(26) "Water Well" or "Well" means any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location, acquisition, development, or artificial recharge of ground water, but such term does not include any well for the purpose of obtaining or prospecting for oil, natural gas, minerals, or products of mining or quarrying; for inserting media to dispose of oil brines or to repressure oil-bearing or natural gas-bearing formation; for storing petroleum, natural gas, or other products; or for temporary dewatering of subsurface formations for mining, quarrying, or construction purposes.

(27) "Water Well Contractor" means an individual who is responsible for the construction, repair, or abandonment of a water well and who is licensed under Chapter 62-531, F.A.C., to engage in the business of construction, repair, or abandonment of wells.

(28) "Well Seal" means an approved arrangement or device to prevent contaminants from entering the well at the upper terminal.

Rulemaking Authority 373.309 FS. Law Implemented 373.303, 381.0062, 403.852 FS. History–New 8-17-74, Amended 7-16-81, Formerly 17-21.02, 17-21.020, Amended 7-30-89, 3-11-92, Formerly 17-532.200, Amended 3-28-02, 10-7-10.

62-532.400 Permit for Water Well Construction, Repair, or Abandonment.

(1) After the effective date upon which a district implements a permit system pursuant to Chapter 373, Part III, F.S., a permit shall be required before beginning construction, repair, or abandonment of any water well within such area. The permit shall be obtained from the permitting authority by making written application on Form Number 62-532.900(1), State of Florida Permit Application to Construct, Repair, Modify, or Abandon A Well, adopted and incorporated herein, and available as described in Rule 62-532.900, F.A.C. The application shall be made and submitted to the permitting authority by the owner or by the water well contractor on behalf of the owner. Any required fee shall be submitted with the permit application.

(2) Permit issuance shall require that:

(a) The application is in the proper form and contains the required information; provided that the proposed construction, repair, or abandonment will not violate applicable laws, rules, or orders of the permitting authority.

(b) Additional information shall be required by the permitting authority if needed to assess site specific conditions. Such information includes geophysical logs, geologic samples and logs, and well pumping tests.

(3) Receipt of the permit by the applicant shall constitute permission to begin well construction, repair, or abandonment.

(4) The permit shall be available for inspection at the site of the well during construction, repair, or abandonment of the well.

(5) Any permittee who desires to change the location of a well before the start of construction or before construction is completed shall apply to the permitting authority for an amendment to the well construction permit. When a permit fee was required to obtain the original permit no additional fee shall be charged to amend the permit. As a condition to approving an amended permit, the permitting authority shall require the sealing or plugging of any incomplete well.

(6) Each permit shall be valid for a period of one year. In the event construction, repair, or abandonment is not completed within that time, the permitting authority shall extend the time limit upon written request by the permittee or require the applicant to obtain a new permit before continuing construction, repair, or abandonment of a water well.

(7) Water wells shall be located to comply with the setback distances in Table I at the end of this chapter.

(8) A drinking water supply well installed by an installation used to serve that installation's operation is exempt from meeting the 500-foot setback distance from on-site slow rate and rapid rate land application flow systems, domestic wastewater residuals land application, phosphogypsum stack systems, and solid waste disposal facilities if reasonable assurance is provided by the installation owner that the ground water and drinking water source are protected. Reasonable assurance shall be demonstrated if:

(a) The planned withdrawal from the drinking water supply well will not cause the discharge from the operation to be captured by the well, or

(b) The drinking water supply well is withdrawing from a confined aquifer, or

(c) Additional monitoring of the ground water and the drinking water is provided to ensure that contaminants are not reaching the drinking water supply well and a commitment is made to treat the drinking water supply if a contaminant is detected or to provide an alternate drinking water supply, and

(d) The setback distances from sanitary hazards as provided in Table I shall apply.

Rulemaking Authority 373.309 FS. Law Implemented 373.306, 373.308, 373.309, 373.316, 403.862 FS. History–New 8-17-74, Amended 9-10-78, Formerly 17-21.04, 17-21.040, Amended 7-30-89, 3-11-92, Formerly 17-532.400, Amended 3-28-02, 10-7-10.

62-532.410 Water Well Completion Report.

Within 30 days after completion of the construction, repair, or abandonment of any water well, a written report shall be filed with the permitting authority on Form Number 62-532.900(2), State of Florida Well Completion Report, adopted and incorporated herein, and available as described in Rule 62-532.900, F.A.C.

Rulemaking Authority 373.309 FS. Law Implemented 373.309 FS. History–New 8-17-74, Formerly 17-21.05, 17-21.050, Amended 7-30-89, Formerly 17-532.410, Amended 10-7-10.

62-532.420 Emergency Water Well Permits.

(1) Permission to begin construction, repair, or abandonment of any well may be applied for by telephone when emergency conditions exist that justify such a request. The permitting authority shall grant an emergency permit to avert an imminent and substantial danger to the public health, safety, or welfare.

(2) The applicant for an emergency permit shall reduce his application to writing in accordance with the provisions of Rule 62-532.400, F.A.C., and submit it within ten days. All other provisions of this chapter shall remain applicable.

Rulemaking Authority 373.309 FS. Law Implemented 373.306, 373.309, 373.313, 373.326 FS. History–New 8-17-74, Formerly 17-21.06, 17-21.060, Amended 7-30-89, Formerly 17-532.420, Amended 10-7-10.

62-532.430 Intent to Deny a Water Well Construction Permit.

(1) The permitting authority shall issue an intent to deny whenever it determines that an application for a permit under Rule 62-532.400, F.A.C., fails to meet the requirements of Chapter 373, F.S., or any rule, order, or standard adopted pursuant thereto, or that the proposed well will be harmful to the water resources of the State.

(2) The intent to deny shall:

(a) State the grounds for denial, and

(b) Be served in writing upon the owner and user by registered or certified mail.

(3) Any person receiving an intent to deny may petition for hearing by filing a written petition with the permitting authority within 30 days of the receipt of the intent. The hearing shall be conducted pursuant to Chapter 120, F.S.

Rulemaking Authority 373.309 FS. Law Implemented 373.306, 373.309, 373.313, 373.333, 373.342 FS. History–New 8-17-74, Formerly 17-21.07, 17-21.070, Amended 7-30-89, Formerly 17-532.430.

62-532.440 Abandonment of Water Wells.

Rulemaking Authority 373.309 FS. Law Implemented 373.306, 373.309, 373.313, 373.316, 373.333 FS. History–New 8-17-74, Formerly 17-21.09, 17-21.090, Amended 7-30-89, Formerly 17-532.440, Repealed 10-7-10.

62-532.500 Water Well Construction Standards.

The following minimum standards shall apply to the construction, repair, and abandonment of water wells in the State unless exempted by a water management district rule with the concurrence of the Department. Operation requirements for public water systems are included in Chapter 62-555, F.A.C., and operation requirements for limited use public water systems, multifamily water systems, and private water systems are included in Chapter 64E-8, F.A.C.

(1) Well Casing, Liner Pipe, Coupling, and Well Screen Requirements.

(a) Well casing, liner pipe, coupling, and well screen shall be new or in like new condition. Such well casing, liner pipe, coupling, or well screen shall not be used unless free of breaks, corrosion and dents, is straight and true, and not out of round. Welded or seamless black or galvanized steel pipe or casing, or stainless steel pipe or casing, or approved types of nonmetallic pipe shall be used for well casing or liner pipe. All well casing shall conform to one of the following standards: American Society for Testing and Materials (ASTM) A53/A53M-99b (1999), A135-01 (2001), A252-98 (1998), A589-96 (1996), or American Petroleum Institute (API) 5L-2000 (2000). Well casing that conforms to any of the aforementioned ASTM or API standards shall also conform to the 2000 American National Standard Institute for Welded and Seamless Wrought Steel Pipe (ANSI/ASME B36.10M-2000). All well casing shall be stenciled with the applicable standard, or proper documentation of manufacturer specifications must be supplied to the permitting authority upon request. Copies of these standards may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, P. O. Box C700, West Conshohocken, PA 19428-2959; the American Petroleum Institute, 1220 L Street NW, Washington, DC 20005-4070; and the American National Standards Institute, 1819 L Street NW, Washington, DC 20036, respectively.

(b) Black or galvanized steel casing installed by driving shall not have less than the dimensions and weights specified below.

Nominal Size (in.)	Outside Diameter (in.)	Wall Thickness (in.)	Plain End Weight (lbs./ft.)
1.25	1.660	.140	2.27
1.5	1.900	.145	2.72
2	2.375	.154	3.65
3	3.5	.216	7.58
3.5	4.000	.226	9.11
4	4.5	.237	10.79
5	5.563	.258	14.62
6	6.625	.280	18.97
8	8.625	.277	24.70
10	10.750	.307	34.24
12	12.750	.330	43.77
14-30		.375	
more than 30		.500	

Note: A 4 inch nominal size casing with a wall thickness of .188 inches and a plain end weight of 8.66 pounds/foot may be used if it conforms to standard API 5L-2000, Grade B, 60 KSI tensile strength. Other casing that meets these minimum tensile strength standards shall be acceptable. For example, A53/A53M-99b, Grade B, may also be substituted.

(c) Black or galvanized steel casing or liner pipe set into place without driving shall not have less than the dimensions and weights specified below.

Nominal Size (in.)	Outside Diameter (in.)	Wall Thickness (in.)	Plain End Weight (lbs./ft.)
1.25	1.660	.140	2.27
1.5	1.900	.145	2.72
2	2.375	.154	3.65
2.5	2.875	.203	5.79
3	3.500	.188	6.65
3.5	4.000	.188	7.65
4	4.500	.188	8.66
5	5.500	.188	10.79
6	6.625	.188	12.92
8	8.625	.188	16.94
10-16		.250	
>16		.375	

(d) Stainless steel pipe used for casing or liner pipe shall be Schedule 10S of the American National Standards Institute (ANSI/ ASME B36.19M-1985), or stronger classification.

(e) Polyvinyl Chloride (PVC) pipe may be used for well casing, liner pipe, and well screens. Any PVC pipe used for well construction or repair shall at a minimum meet the specifications for Schedule 40 or Standard Dimension Ratio (SDR) 21. The appropriate water management district shall require the use of stronger PVC casing if necessary to protect the integrity of the well.

(f) The Department shall approve a well casing or liner pipe not otherwise specified in paragraphs 62-532.500(1)(a) through (e), F.A.C., if the applicant makes a showing, certified by a professional engineer, to justify that such use would provide an equivalent material strength and durability. The following material has been approved pursuant to this procedure: DNS Well-Cor, Allied Tube and Conduit, A Division of Grinnel Corporation, 1440 Massaro Boulevard, Tampa, Florida, 33619.

Nominal Size (in.)	Outside Diameter (in.)	Wall Thickness (in.)
1.25	1.638	.085
2	2.360	.095
4	4.466	.150

(g) Well casing, liner pipe, coupling, and well screens used for potable water well construction or repair shall conform to 2008 NSF International Standard/American National Standard NSF/ANSI 14-2008e, Plastics Piping System Components and Related Materials, or NSF International Standard/American National Standard NSF/ANSI 61-2008, Drinking Water System Components – Health Effects, both of which are adopted and incorporated by reference herein. Copies of these copyrighted standards may be obtained from NSF International, P. O. Box 130140, Ann Arbor, MI 48113-0140.

(h) Steel well casing and liner pipe shall be joined in a watertight manner by threaded couplings, electrical welding methods, or other methods approved by the appropriate water management district which provide equivalent protection. PVC pipe shall be joined by solvent bonded couplings, threaded couplings, heat welding, or other methods approved by the appropriate water management district which provide equivalent protection.

(i) Nonmetallic and stainless steel well casing or liner pipe shall not be installed by driving unless prior approval is obtained from the appropriate water management district based on a demonstration that the integrity of the well casing or liner pipe will be maintained. For well casing or liner pipe installed by driving, the casing or pipe shall not butt together inside threaded couplings unless the joint is electrically welded so as to be completely watertight. A drive shoe is required for use on casing or pipe installed by driving unless prior approval is obtained from the appropriate water management district based on a demonstration that a drive shoe is not necessary to maintain the integrity of the casing or pipe.

(2) Geothermal well heat exchanger pipe and fitting materials shall meet the standards and specifications in the document Closed-Loop/Geothermal Heat Pump Systems Design and Installation Standards, Revised Edition 2008, published by the International Ground Source Heat Pump Association, Oklahoma State University, which is adopted and incorporated by reference herein. In addition, the reference Closed-Loop/Ground-Source Heat Pump Systems Installation Guide, 1988, Oklahoma State University, is excellent and is included here as a guidance document. Copies of all of these references may be obtained from the International Ground Source Heat Pump Association, Oklahoma State University, 374 Cordell South, Stillwater, OK 74078-8018.

(a) All geothermal well heat exchanger pipe and fitting materials shall be stenciled with the applicable standard, or proper documentation of manufacturer specifications must be supplied to the permitting authority upon request.

(b) The Department or the permitting authority shall approve geothermal well heat exchanger pipe and fitting materials not meeting the standards and specifications in the document adopted in subsection 62-532.500(2), F.A.C., if the applicant makes a showing, certified by a professional engineer, to justify that such use would provide an equivalent material strength and durability.

(3) Well Construction Criteria.

(a) Well casings, which are seated into unconsolidated earth material, shall extend from the upper terminus of the well to the well screen. The well screen shall be attached to the casing with a watertight seal.

(b) Well casings that are seated into a rock layer or other consolidated earth material, shall be continuous and shall extend from the upper terminus of the well to no less than the top of the uppermost consolidated unit. Wells constructed of telescoping casings shall be considered as a continuous casing provided the grout requirements are met. The lower terminus of the well casing shall extend to or below the water level of the aquifer intended to supply water to the well or receive fluids from the well. In addition, all caving zones below the uppermost consolidated unit shall be cased.

(c) Geothermal wells shall be grouted in accordance with subparagraph 62-532.500(3)(i)6., F.A.C.

(d) For public water system wells using telescoped casing, the casing shall be overlapped by not less than 20 feet when increases or reductions occur in casing size, unless another footage is approved by the appropriate water management district or permitting authority. Not less than two centralizing spacers shall be used in the overlapped sections, and the annular space in the overlapped sections shall be completely sealed with cement grout.

(e) Prevention of Interchange of Water and Loss of Artesian Pressure. All water wells shall be properly designed and constructed to prevent an interchange of water between water bearing zones that may result in deterioration of the quality of water in one or more water bearing zones, or will result in a loss of artesian pressure. If a well cannot be properly completed to prevent such an unauthorized interchange of water between water bearing zones or to prevent a loss of artesian pressure, the well shall be abandoned and plugged in accordance with this chapter or other directions from the permitting authority, which are appropriate for the hydrogeologic conditions encountered.

(f) In the construction, repair, or abandonment of a water well, caution shall be taken to maintain the work site so as to minimize the potential entrance of contaminants into the bore hole and the ground water resource.

(g) Only water from a potable water source shall be used in the construction, repair or abandonment of a water well, including water for cleaning of well materials, drilling equipment, and water used to mix drilling fluids.

(h) Use of Explosives. The use of dynamite or other high-grade explosives in the construction or repair of water wells is prohibited.

(i) Grouting and Sealing.

1. All well casings seated into a consolidated formation shall be seated or sealed with neat cement grout.

2. Except as provided in 3. below, wells with driven casing into natural earth or a bore hole equal to or smaller in diameter than the outside diameter of the casing shall be sealed by adding dry bentonite to the casing string at land surface and allowing that material to be carried down the outside of the casing as the casing is driven to completion. Dry bentonite shall be applied to maintain a grout seal around the casing.

3. In the construction of water wells with driven casing, for limited use commercial public water systems, limited use community public water systems, public water systems, potable water wells permitted pursuant to Chapter 62-524, F.A.C., and water wells serving bottled water plants, the minimum acceptable seal shall be accomplished by undercutting or under-reaming the last five feet of the hole before seating the casing. A minimum of one foot of such enlarged hole must be into the consolidated formation in which the casing will be seated. The entire enlarged portion of the hole shall be filled with cement grout, and then the casing shall be driven through the cement grout and seated into the enlarged one-foot portion of the consolidated formation. The uppermost 20 feet of casing shall be sealed with no less than a two-inch nominal thickness of cement grout. No other minimum seal

shall be acceptable unless approved by the appropriate water management district or delegated permitting authority as providing equivalent protection to the resource.

4. For any part of a well casing with an outside diameter of four inches or larger intended to be installed in a bore hole which is larger in diameter than the inside diameter of the casing, the annular space shall be filled from bottom to top with not less than a nominal two-inch thickness of neat cement grout. For well casings with an outside diameter of less than four inches, intended to be installed in a bore hole which is larger in diameter than the inside diameter of the casing, the minimum grout thickness shall be a nominal one inch thickness of neat cement grout. The casing shall be centered in the bore hole prior to grouting. In those cases where, during grouting operations, circulation of the grout is lost so that the annular space being grouted cannot be filled in one continuous operation, a tremie pipe shall be installed in the annular space to a point immediately above the zone of lost circulation and the annulus shall be bridged at that point by sand or other approved material introduced through the pipe. Grouting of the annular space shall be completed using the tremie pipe or other equivalent method approved by the permitting authority.

5. Any district may grant individual exceptions or, with the concurrence of the Department, may exempt any areas of that district from the requirements of cement grouting the annular space between the well casing and bore hole wall of that part of a well which penetrates an unconsolidated formation upon demonstration that:

a. The unconsolidated formation material is of such a caving nature that upon stopping the circulation of drilling fluid through the well the aquifer material will immediately cave into and fill up the annular space between the well casing and bore hole wall.

b. A flow space is not created by such construction that will allow any movement of waters along the outside of the well casing which did not naturally occur prior to construction of the well.

6. Except as provided in subparagraph 5. above, grouting and sealing of water wells shall be accomplished by the practices and methods recommended by Appendix C of American Water Works Association (AWWA) Standard A100-97 (1997), AWWA Standard for Water Wells, and grouting and sealing of geothermal wells shall be accomplished by the practices and methods recommended by the Vertical Geothermal Heat Pump Systems Engineering Design and Field Procedures Manual, published by the International Ground Source Heat Pump Association, First Edition 2000, Oklahoma State University, which are adopted and incorporated by reference herein. Copies of these recommended practices and methods may be obtained from the American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235; and the International Ground Source Heat Pump Association, Oklahoma State University, 374 Cordell South, Stillwater, OK 74078-8018, respectively.

7. Alternate grouting methods and materials providing equivalent protection shall be approved in writing by the permitting authority. Alternatives to the grouting methods described in subparagraphs 1.-6. above, must be requested for use from the permitting authority as part of the construction permit application, or once construction begins only in situations where the methods in the rules are not working. In either situation, a detailed explanation of what and why alternate methods are requested must be provided. Alternate grout materials (other than neat cement grout) must be requested in the construction permit application, or once construction begins only when neat cement grout is not providing or will not provide as good a seal as the alternate materials.

(4) Top of the Well.

(a) Well Covers.

1. Whenever there is an interruption in work on the well, such as overnight shutdown, the well opening shall be sealed with a tamper resistant cover.

2. Except for those areas of a district designated by the Department with the concurrence of the permitting authority, any well in which pumping equipment is installed seasonally or periodically shall, whenever pumping equipment is not installed, be capped with steel or reinforced concrete cover, or valve.

3. Any cased well equipped with permanently installed pumping equipment shall have that pumping equipment and any necessary piping installed through a well seal.

4. Any unused well shall be capped in a watertight manner with a threaded, welded, or bolted cover or valve.

(b) Upper Terminus.

1. At the time of well construction, all wells shall be accessible at the upper terminus of the well casing for inspection, servicing, and testing.

2. For private and multi-family water system wells and irrigation wells, the upper terminus of the well casing shall project at least 12 inches above finished grade. Where a potential physical structure or traffic hazard may be present or where a potential public health threat exists, the upper well casing terminus may be placed in an appropriate enclosure terminating at finished grade. The enclosure shall be designed to allow vertical access to the upper well casing terminus for maintenance and inspection and

provide for gravity drainage of the enclosure. The upper well casing terminus shall be constructed to a point 18 inches or less below finished grade. The upper well casing terminus shall be sealed with a water tight seal to prevent the entrance of surface water and contaminants into the well.

3. For limited use commercial public water system wells and limited use community public water system wells constructed on or after April 1, 2002, the upper terminus of the well casing shall project at least 12 inches above the concrete apron around the well.

4. For public water system wells constructed on or after April 1, 2002, the upper terminus of the well casing shall project at least 12 inches above the pump house floor, pump pit floor, or concrete apron around the well.

5. For public water system wells, limited use commercial public water system wells, and limited use community public water system wells constructed on or after April 1, 2002, located at sites subject to flooding, the upper terminus of the well casing shall project at least 12 inches above the 100-year flood elevation and 100-year wave-action elevation. Where it is not practicable to comply with this requirement, the water management district or delegated permitting authority shall allow exceptions on a case-by-case basis provided the upper terminus of the well casing is fitted with a watertight seal.

6. Public water system wells, limited use commercial public water system wells, and limited use community public water system wells, shall be equipped with a sealable opening that will allow introduction of disinfectants and measurement of static water level and drawdown or artesian pressure.

(c) Well Aprons. For public water system wells, limited use commercial public water system wells, and limited use community public water system wells constructed on or after April 1, 2002, not located within a pump house or pump pit, a concrete apron at least six feet by six feet and at least four inches thick shall be centered around the well. The bottom surface of the concrete apron shall be constructed on top of the finished grade, and the top surface of the concrete apron shall be sloped to drain away from the well casing.

(d) Flowing Wells. If the well flows at land surface, control shall be provided by valved pipe connections, watertight pump connections, or receiving reservoirs set at an altitude corresponding to the artesian head.

(5) Plugging. All abandoned wells shall be plugged by filling them from bottom to top with neat cement grout or bentonite and capped with a minimum of one foot of neat cement grout. An alternate method providing equivalent protection shall be approved in writing by the Department or the permitting authority.

Rulemaking Authority 373.309 FS. Law Implemented 373.309, 373.313, 373.316 FS. History–New 8-17-74, Formerly 17-21.10, 17-21.100, Amended 7-30-89, 3-11-92, Formerly 17-532.500, Amended 3-28-02, 10-7-10.

62-532.510 Water Well Inspections.

(1) During the construction, repair, or abandonment of any well, the Department or the permitting authority may conduct inspections as is necessary to ensure conformity with applicable standards. Duly authorized representatives of the Department or the permitting authority shall be given access, at reasonable times, to any premises for the purpose of such inspection.

(2) If during construction, repair, or abandonment, the Department or the permitting authority finds the work does not meet the requirements of rules and standards adopted pursuant to Chapter 373, F.S., the Department or the permitting authority shall give the owner and water well contractor written notice pursuant to the requirements in Section 120.60, F.S.

Rulemaking Authority 373.309 FS. Law Implemented 120.60, 373.316, 373.319, 373.323, 373.333 FS. History–New 8-17-74, Formerly 17-21.11, 17-21.110, Amended 7-30-89, Formerly 17-532.510.

62-532.600 Enforcement of Water Well Permitting and Construction Requirements.

Enforcement shall be as provided by Section 373.333, F.S.

Rulemaking Authority 373.309 FS. Law Implemented 373.129, 373.333 FS. History–New 8-17-74, Formerly 17-21.12, 17-21.120, Amended 7-30-89, Formerly 17-532.600.

62-532.610 Penalties for Violation of Water Well Permitting and Construction Requirements.

Penalties shall be as provided by Section 373.336, F.S.

Rulemaking Authority 373.309 FS. Law Implemented 373.336 FS. History–New 8-17-74, Formerly 17-21.13, 17-21.130, Amended 7-30-89, Formerly 17-532.610.

62-532.900 Forms.

Rulemaking Authority 373.309 FS. Law Implemented 373.309, 373.313, 373.316 FS. History–New 10-7-10, Repealed 2-16-12.

Effective Date: February 16, 2012

TABLE 1
WELL SETBACK DISTANCES
October 7, 2010

Part A Drinking Water Supply Wells Serving Public Water Systems or Bottled Water Plant Wells		
RULE	INSTALLATION	SETBACK in feet (footnote)
Reuse of Reclaimed Water and Land Application 62-610.421(3)	Slow Rate Land Application Restricted Public Access	500 (a)
62-610.521(2)	Rapid Rate Land Application	500 (b)
62-610.621(2)	Overland Flow Systems	500
62-610.621(4)	Transmission Facilities Conveying Reclaimed Water to Restricted Public Access Slow Rate Land Application Systems, Rapid Rate Land Application System, or Overland Flow Systems	100
62-610.471(1)	Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
62-610.471(3)	Transmission Facilities Conveying Reclaimed Water to Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
Domestic Wastewater Residuals 62-640.700(4)(b)	Domestic Wastewater Residuals Land Application Areas	500
Phosphogypsum Management 62-673.340(2)(d)	Phosphogypsum Stack Systems	500 (c)
Storage Tank Systems 62-761.500(1)(a) and 62-762.501(1)(a)	Aboveground or Underground Storage Tanks	100
Solid Waste Management Facilities 62-701.300(2)(b)	Solid Waste Disposal Facilities	500
62-701.300(12)(a)	Yard Trash Disposal, Storage, or Processing	200
62-701.300(13)	Storage or Treatment of Solid Waste in Tanks	100
Permitting and Construction of Public Water Systems 62-555.312(1)	Onsite Sewage Treatment and Disposal Systems	200 (d), 100 (e)
Public Water Systems 62-555.312(3)	Sanitary Hazard as defined in Chapter 62-550, F.A.C., for drinking water supply wells serving public water systems	100 (f), 50 (g)
Feedlot and Dairy Wastewater Treatment and Management Requirements 62-670.500(6)(a)	Dairy Farm Waste - Unlined Storage and Treatment, or High Intensity Areas	300
62-670.500(6)(b)	Dairy Farm Waste - Land Application	200

Part B Drinking Water Supply Wells Serving Limited Use Commercial Public Water Systems and Limited Use Community Public Water Systems		
RULE	INSTALLATION	SETBACK in feet (footnote)
Reuse of Reclaimed Water and Land Application 62-610.421(3)	Slow Rate Land Application Restricted Public Access	500 (a)
62-610.521(2)	Rapid Rate Land Application	500 (b)
62-610.621(2)	Overland Flow Systems	100
62-610.621(4)	Transmission Facilities Conveying Reclaimed Water to Restricted Public Access Slow Rate Land Application Systems, Rapid Rate Land Application System, or Overland Flow Systems	100
62-610.471(1)	Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
62-610.471(3)	Transmission Facilities Conveying Reclaimed Water to Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
Domestic Wastewater Residuals 62-640.700(4)(b)	Domestic Wastewater Residuals Land Application Areas	500
Phosphogypsum Management 62-673.340(2)(d)	Phosphogypsum Stack Systems	500 (c)
Storage Tank Systems 62-761.500(1)(a) and 62-762.501(1)(a)	Aboveground or Underground Storage Tanks	100
Solid Waste Management Facilities 62-701.300(2)(b)	Solid Waste Disposal Facilities	500
62-701.300(12)(a)	Yard Trash Disposal, Storage, or Processing (no setback required for on-site water wells)	100
62-701.300(13)	Storage or Treatment of Solid Waste in Tanks	100
Drinking Water Systems 64E-8.002(2)	Onsite Sewage Treatment and Disposal Systems	200 (d), 100 (e)
	Sanitary Hazard	100 (f), (g)
Feedlot and Dairy Wastewater Treatment and Management Requirements 62-670.500(6)(b)	Dairy Farm Waste – Unlined Storage and Treatment, or High Intensity Areas	300
62-670.500(6)a)	Dairy Farm Waste – Land Application	200

Part C Private Wells Multifamily Wells		
RULE	INSTALLATION	SETBACK in feet (footnote)
Reuse of Reclaimed Water and Land Application 62-610.421(3)	Slow Rate Land Application Restricted Public Access	500 (a)
62-610.521(2)	Rapid Rate Land Application	500 (b)
62-610.621(2)	Overland Flow Systems	100
62-610.471(1)	Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
Domestic Wastewater Residuals 62-640.700(4)(b)	Domestic Wastewater Residuals Land Application Areas	300
Storage Tank Systems 62-761.500(1)(a) and 62-762.501(1)(a)	Aboveground or Underground Storage Tanks	100
Solid Waste Management Facilities 62-701.300(2)(b)	Solid Waste Disposal Facilities	500
62-701.300(12)(a)	Yard Trash Disposal, Storage, or Processing (no set back required for on-site water wells)	100
62-701.300(13)	Storage of Treatment of Solid Waste in Tanks	100
Drinking Water Systems 64E-8.003(1)	Onsite Sewage Treatment and Disposal Systems	75
	Sanitary Hazard	75 (f), (g)
Feedlot and Dairy Wastewater Treatment and Management Requirements 62-670.500(6)(a)	Dairy Farm Waste – Unlined Storage and Treatment, or High Intensity Areas	300
62-670.500(6)(b)	Dairy Farm Waste – Land Application	200

Part D Irrigation Wells and Geothermal Wells		
RULE	INSTALLATION	SETBACK in feet (footnote)
Standards for Onsite Sewage Treatment and Disposal Systems 64E-6.005(1)(d)	Onsite Sewage Treatment and Disposal System	50

TABLE I FOOTNOTES

(a) This distance shall be reduced to 200 feet if facility Class I reliability is provided and shall be reduced to 100 feet if both facility Class I reliability and high-level disinfection are provided.

(b) This distance shall be reduced to 200 feet if both facility Class I reliability and high-level disinfection are provided and if the applicant provides reasonable assurance that applicable water quality standards will not be violated at the point of withdrawal.

(c) This distance applies only to shallow water supply wells (i.e., potable water wells that pump from an unconfined water table aquifer).

(d) This distance applies to public drinking water supply wells that serve water systems having total sewage flows greater than 2,000 gallons per day.

(e) This distance applies to public drinking water supply wells that serve water systems having total sewage flows less than or equal to 2,000 gallons per day.

(f) This distance applies to sanitary hazards that pose a potentially high risk to ground water quality and public health as defined in subsection 62-555.312(3), F.A.C. The following examples are of sanitary hazards that pose a potentially high risk: active or abandoned mines; airplane or train fueling or maintenance areas at airports and railroad yards; concentrated aquatic animal production facilities; domestic wastewater collection/transmission systems; drainage or injection wells, oil or gas production wells, and improperly constructed or abandoned wells (i.e., wells not constructed or abandoned in accordance with Chapter 62-532, F.A.C.); fertilizer, herbicide, or pesticide storage areas at agricultural sites, golf courses, nurseries, and parks; graveyards; impoundments and tanks that process, store, or treat domestic wastewater, domestic wastewater residuals, or industrial fluids or waste and that are not regulated under Rule 62-670.500, F.A.C.; industrial waste land application areas other than those regulated under Rule 62-670.500, F.A.C.; junkyards and salvage or scrap yards; pastures with more than five grazing animals per acre; cattle dip vats; pipelines conveying petroleum products, chemicals, or industrial fluids or wastes; and underground storage tanks that are not regulated under Chapter 62-761, F.A.C., but are used for bulk storage of a liquid pollutant or hazardous substance (as defined in Chapter 62-761, F.A.C.) other than sodium hypochlorite solution.

(g) This distance applies to sanitary hazards that pose a potentially moderate risk to ground water quality and public health as defined in subsection 62-555.312(3), F.A.C. The following examples are of sanitary hazards that pose a moderate risk: aboveground storage tanks that are not regulated under Chapter 62-762, F.A.C., but are used for bulk storage of a liquid pollutant or hazardous substance (as defined in Chapter 62-762, F.A.C.) other than sodium hypochlorite solution; fertilizer, herbicide, or pesticide application areas that are not under the ownership or control of the supplier of water at agricultural sites, golf courses, nurseries, and parks; railroad tracks; stormwater detention or retention basins; and surface water (the surface water setback does not apply to multi-family and private wells).

CHAPTER 62-555
PERMITTING, CONSTRUCTION, OPERATION, AND MAINTENANCE OF PUBLIC WATER SYSTEMS

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

(1) Suppliers of water shall obtain raw water from the best available source that is economically sensible and technically possible and shall make an effort to protect the source from contamination.

(2) To the extent practicable, suppliers of water and persons constructing public water systems shall avoid locating any part of a new public water system, and any expansion of an existing public water system, at any site that:

(a) Is subject to significant risk from contamination that could adversely affect the quality of drinking water or is subject to significant risk from floods, fires, or other disasters that could cause a breakdown of the public water system or any portion thereof; or

(b) Except for surface water impoundments, reservoirs, or intake structures (including pumping facilities) and except for underground piping and appurtenances, is within the floodplain of a 100-year flood or is lower than any recorded high tide.

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

62-555.312 Location of Public Water System Wells.

For the purpose of this section, the phrase "new wells" shall mean wells being newly connected, or reconnected, to a public water system (PWS).

(1) All wells that were connected to a PWS on or after November 9, 1977, but before December 13, 1983, and wells that are, or will be, supplying a PWS serving premises with an estimated collective sewage flow of 2,000 gallons or less per day and that were,

or will be, connected to the PWS on or after December 13, 1983, shall be no closer than 100 feet from any "on-site sewage treatment and disposal system" (OSTDS) as defined in Section 381.0065(2), F.S., and Rule 64E-6.002, F.A.C., regardless of the location of the OSTDS. Wells that are, or will be, supplying a PWS serving premises with an estimated collective sewage flow greater than 2,000 gallons per day and that were, or will be, connected to the PWS on or after December 13, 1983, shall be no closer than 200 feet from any OSTDS, regardless of the location of the OSTDS.

(2) New wells shall not be placed within the setback distances discussed in subsection 62-532.400(7), F.A.C., and listed in Part A of Table I in Chapter 62-532, F.A.C.

(3) New wells shall be located no closer than 100 feet from other sanitary hazards that pose a potentially high risk to ground water quality and public health and shall be located no closer than 50 feet from other sanitary hazards that pose a moderate risk to ground water quality and public health. The following are examples of other sanitary hazards that pose a potentially high risk: active or abandoned mines; airplane or train fueling or maintenance areas at airports and railroad yards; animal feeding operations other than those regulated under Rule 62-670.500, F.A.C.; concentrated aquatic animal production facilities; domestic wastewater collection/transmission systems; drainage or injection wells, oil or gas production wells, and improperly constructed or abandoned wells (i.e., wells not constructed or abandoned in accordance with Chapter 62-532, F.A.C.); fertilizer, herbicide, or pesticide storage areas at agricultural sites, golf courses, nurseries, and parks; graveyards; impoundments and tanks that process, store, or treat domestic wastewater, domestic wastewater residuals, or industrial fluids or waste and that are not regulated under Rule 62-670.500, F.A.C.; industrial waste land application areas other than those regulated under Rule 62-670.500, F.A.C.; junkyards and salvage or scrap yards; pastures with more than five grazing animals per acre; pipelines conveying petroleum products, chemicals, or industrial fluids or wastes; and underground storage tanks that are not regulated under Chapter 62-761, F.A.C., but are used for bulk storage of a liquid pollutant or hazardous substance (as defined in Chapter 62-761, F.A.C.) other than sodium hypochlorite solution. The following are examples of other sanitary hazards that pose a moderate risk: aboveground storage tanks that are not regulated under Chapter 62-761, F.A.C., but are used for bulk storage of a liquid pollutant or hazardous substance (as defined in Chapter 62-761, F.A.C.) other than sodium hypochlorite solution; fertilizer, herbicide, or pesticide application areas that are not under the ownership or control of the supplier of water at agricultural sites, golf courses, nurseries, and parks; railroad tracks; stormwater detention or retention basins; and surface water.

(4) For wells connected to a community water system on or after August 28, 2003, except those connected under a construction permit for which the Department received a complete application before August 28, 2003, continuing protection of the well from the sanitary hazards described in subsection (3) above shall be provided during the entire useful life of the well through one of the following means:

(a) Ownership by the water supplier of all land within 100 feet of the well;

(b) Control by the water supplier of all land within 100 feet of the well via easements, lease agreements, or deed restrictions that appropriately limit use of the land;

(c) Wellhead protection, zoning, or other land use regulations that appropriately limit use of all land within 100 feet of the well; or

(d) Other appropriate means.

(5) New wells shall be located on their sites in such a manner that the wells are in an area free from, or least subject to, inundation with surface drainage and flood water; and to the extent practicable, new wells shall be located on their sites in such a manner that the wells are "upstream" from on-site or off-site sanitary hazards when considering the direction of ground water movement.

(6) The Department or the appropriate water management district or delegated permitting authority shall approve a decrease in the standard well setback distances described in subsections (1) through (4) above if justified by any of the following: the presence, thickness, and extent of natural barriers such as impermeable geological strata; the design and construction of the well, including the depth of the well; the drinking water treatment provided; or the use of alternative means to reduce public health risks, such as the use of encasement or restrained joints to eliminate or minimize leakage from a pipeline that is a sanitary hazard or the use of additional drinking water monitoring. However, water management districts and delegated permitting authorities shall obtain the Department's concurrence before decreasing well setback distances because of either the type of drinking water treatment provided or the use of alternative means to reduce public health risks.

Rulemaking Authority 373.309(1), 373.337, 403.861(9) FS. Law Implemented 373.309(1), 403.852(12) FS. History–Formerly 17-22.615(2), Amended 1-18-89, 5-7-90, Formerly 17-555.312, Amended 8-28-03.

62-555.314 Location of Public Water System Mains.

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

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

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

(b) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed vacuum-type sanitary sewer.

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

(d) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least ten feet between the outside of the water main and all parts of any existing or proposed "on-site sewage treatment and disposal system" as defined in Section 381.0065(2), F.S., and Rule 64E-6.002, F.A.C.

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

(a) New or relocated, underground water mains crossing any existing or proposed gravity- or vacuum-type sanitary sewer or storm sewer shall be laid so the outside of the water main is at least six inches, and preferably 12 inches, above or at least 12 inches below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.

(b) New or relocated, underground water mains crossing any existing or proposed pressure-type sanitary sewer, wastewater or stormwater force main, or pipeline conveying reclaimed water shall be laid so the outside of the water main is at least 12 inches above or below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.

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

(3) Separation Between Water Mains and Sanitary or Storm Sewer Manholes.

(a) No water main shall pass through, or come into contact with, any part of a sanitary sewer manhole.

(b) Effective August 28, 2003, water mains shall not be constructed or altered to pass through, or come into contact with, any part of a storm sewer manhole or inlet structure. Where it is not technically feasible or economically sensible to comply with this requirement (i.e., where there is a conflict in the routing of a water main and a storm sewer and where alternative routing of the water main or the storm sewer is not technically feasible or is not economically sensible), the Department shall allow exceptions to this requirement (i.e., the Department shall allow construction of conflict manholes), but suppliers of water or persons proposing to construct conflict manholes must first obtain a specific permit from the Department in accordance with Part V of this chapter and must provide in the preliminary design report or drawings, specifications, and design data accompanying their permit application the following information:

1. Technical or economic justification for each conflict manhole.

2. A statement identifying the party responsible for maintaining each conflict manhole.

3. Assurance of compliance with the design and construction requirements in sub-subparagraphs a. through d. below.

a. Each water main passing through a conflict manhole shall have a flexible, watertight joint on each side of the manhole to accommodate differential settling between the main and the manhole.

b. Within each conflict manhole, the water main passing through the manhole shall be installed in a watertight casing pipe having high impact strength (i.e., having an impact strength at least equal to that of 0.25-inch-thick ductile iron pipe).

c. Each conflict manhole shall have an access opening, and shall be sized, to allow for easy cleaning of the manhole.

d. Gratings shall be installed at all storm sewer inlets upstream of each conflict manhole to prevent large objects from entering the manhole.

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

(5) Exceptions. Where it is not technically feasible or economically sensible to comply with the requirements in subsection (1) or (2) above, the Department shall allow exceptions to these requirements if suppliers of water or construction permit applicants provide technical or economic justification for each exception and provide alternative construction features that afford a similar level of reliability and public health protection. Acceptable alternative construction features include the following:

(a) Where an underground water main is being laid less than the required minimum horizontal distance from another pipeline and where an underground water main is crossing another pipeline and joints in the water main are being located less than the required minimum distance from joints in the other pipeline:

1. Use of pressure-rated pipe conforming to the American Water Works Association standards incorporated into Rule 62-555.330, F.A.C., for the other pipeline if it is a gravity- or vacuum-type pipeline;

2. Use of welded, fused, or otherwise restrained joints for either the water main or the other pipeline; or

3. Use of watertight casing pipe or concrete encasement at least four inches thick for either the water main or the other pipeline.

(b) Where an underground water main is being laid less than three feet horizontally from another pipeline and where an underground water main is crossing another pipeline and is being laid less than the required minimum vertical distance from the other pipeline:

1. Use of pipe, or casing pipe, having high impact strength (i.e., having an impact strength at least equal to that of 0.25-inch-thick ductile iron pipe) or concrete encasement at least four inches thick for the water main; and

2. Use of pipe, or casing pipe, having high impact strength (i.e., having an impact strength at least equal to that of 0.25-inch-thick ductile iron pipe) or concrete encasement at least four inches thick for the other pipeline if it is new and is conveying wastewater or reclaimed water.

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

62-555.315 Public Water System Wells - Security; Number; Capacity; Under the Direct Influence of Surface Water; Control of Copper Pipe Corrosion and Black Water; and Disinfection and Bacteriological Surveys and Evaluations.

In addition to the rules set forth in Chapters 62-524 and 62-532, F.A.C., the requirements of this section apply to public water system wells.

(1) Well Security. Wellheads shall be enclosed by fences with lockable access gates, housed in lockable buildings or enclosures, or otherwise protected against tampering, vandalism, and sabotage.

(2) Number of Wells. A minimum of two wells shall be connected to each community water system that is using only ground water and that is serving, or is designed to serve, 350 or more persons or 150 or more service connections.

(3) Well Capacity. The total well capacity connected to a water system using only ground water shall equal at least the system's design maximum-day water demand (including design fire-flow demand if fire protection is being provided). In addition, if the water system is a community system serving, or designed to serve, 350 or more persons or 150 or more service connections, the total well capacity with the largest producing well out of operation shall equal at least the design average daily water demand, and preferably the design maximum-day water demand, for the system. If a community water system interconnects with another

community water system to meet the requirements in subsection (2) above regarding number of wells, the total well capacity for the combined systems shall equal at least the total design maximum-day water demand for the combined systems and, with the largest producing well out of operation for the combined systems, shall equal at least the design average daily water demand, and preferably the design maximum-day water demand, for the combined systems.

(4) Wells Under the Direct Influence of Surface Water. Ground water from some wells, especially shallow wells and radial horizontal collector wells, and ground water from springs or infiltration galleries may be under the direct influence of surface water. The Department shall determine whether ground water is under the direct influence of surface water by using the procedures described in subsection 62-550.517(2), F.A.C., and subparagraph 62-550.817(2)(a)1., F.A.C. Suppliers of water using ground water that is determined by the Department to be under the direct influence of surface water shall comply with applicable requirements under Rule 62-550.817, F.A.C.

(5) Control of Copper Pipe Corrosion and Black Water. Applicants for a construction permit to connect a new or altered well to a community water system, except those applicants who have submitted a complete application to the Department before August 28, 2003, shall include in the preliminary design report or design data accompanying their permit application the results of measurements for alkalinity, dissolved iron, dissolved oxygen, pH, total sulfide, and turbidity in a minimum of one sample of raw water from the new or altered well. These measurements may be performed by any authorized representative of the supplier of water or applicant; but field measurements for dissolved oxygen, pH, and turbidity shall be performed following the appropriate procedures in the Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP-001/01, as incorporated into Rule 62-160.800, F.A.C., and all other measurements shall be performed using an appropriate method referenced in subsection 62-550.550(1), F.A.C., or in *Standard Methods for the Examination of Water and Wastewater* as adopted in Rule 62-555.335, F.A.C. If the result for total sulfide equals or exceeds 0.3 mg/L, the applicant shall do the following:

(a) Provide aeration or other appropriate treatment of the water from the new or altered well to remove total sulfide as necessary. Recommended types of aeration treatment for different water quality ranges are listed in the table below, which is incorporated herein as guidance and not as a requirement. Direct chlorination shall not be used to remove (i.e., oxidize) 0.3 mg/L or more of total sulfide unless the elemental sulfur formed during chlorination is removed.

POTENTIAL FOR IMPACTS WITHOUT TOTAL SULFIDE REMOVAL	WATER QUALITY RANGES	POTENTIAL WATER TREATMENT
Low	Total Sulfide < 0.3 mg/L Dissolved Iron < 0.1 mg/L1	Direct Chlorination2
Moderate	0.3 mg/L Total Sulfide 0.6 mg/L @ pH 7.2 **or** 0.3 mg/L Total Sulfide 0.6 mg/L @ pH > 7.2	Conventional Aeration3 (maximum removal efficiency 40-50%) **or** Conventional Aeration with pH Adjustment4,5 (maximum removal efficiency 40-50%)
Significant	0.6 mg/L < Total Sulfide 3.0 mg/L @ pH 7.2 **or** 0.6 mg/L < Total Sulfide 3.0 mg/L @ pH > 7.2	Forced Draft Aeration3 (maximum removal efficiency 90%) **or** Forced Draft Aeration with pH Adjustment4,5 (maximum removal efficiency 90%)
Very Significant	Total Sulfide > 3.0 mg/L	Packed Tower Aeration with pH Adjustment4,5 (maximum removal efficiency > 90%)
1High iron content raises concern if chlorination alone is used and significant dissolved oxygen exists in the source water. Filtration may be required to remove particulate iron prior to water distribution.		
2Direct chlorination of sulfide in water in the pH range normally found in potable sources produces elemental sulfur and		

increased turbidity. Finished-water turbidity should not be more than two nephelometric turbidity units greater than raw-water turbidity.
3Increased dissolved oxygen entrained during aeration may increase corrosivity.
4Reduction of alkalinity during pH adjustment and high dissolved oxygen entrained during aeration may increase corrosivity. Corrosion control treatment such as pH adjustment, alkalinity recovery, or use of inhibitors may be required.
5High alkalinity will make pH adjustment more costly, and use of other treatment may be in order. Treatment that preserves the natural alkalinity of the source water may enhance the stability of finished water.

(b) Provide in the preliminary design report or design data accompanying the applicant's permit application a water quality and treatment evaluation affirmatively demonstrating that the secondary maximum contaminant levels for color and odor will not be exceeded in the water supplier's drinking water distribution system or in water customers' potable water systems.

(6) Disinfection of Wells and Bacteriological Surveys and Evaluations of Wells. Wells shall be disinfected to inactivate any microbiological contaminant that may have been introduced into the wells during construction, repair, or maintenance and to allow the true microbiological character of well water to be determined through a bacteriological survey.

(a) Before new or altered wells, wells out of operation for more than six months, wells in which new pumping equipment has been installed, and wells taken out of operation for maintenance that might have contaminated the well are placed into, or returned to, operation, they shall be disinfected in accordance with Sections 1. through 4. and Section 5.2 of American Water Works Association (AWWA) Standard C654 as incorporated into Rule 62-555.330, F.A.C. In Section 5.2 of the aforementioned AWWA standard, references to Section 5.1 shall be interpreted to mean paragraph 62-555.315(6)(b) or (c), F.A.C., as appropriate. This paragraph does not apply to, and disinfection is not required for, wells that officially have been determined to be under the direct influence of surface water per subsection 62-550.517(2), F.A.C., and subparagraph 62-550.817(2)(a)1., F.A.C., and that are pumping to treatment plants with filtration and disinfection facilities meeting all applicable requirements in Rule 62-550.817, F.A.C.

(b) Following disinfection of a new or altered well or a well that has been out of operation for more than six months, a bacteriological survey of the well shall be conducted as set forth in subparagraphs 1. through 3. below unless the well is already considered microbially contaminated or susceptible to microbial contamination per subparagraph 2. below or paragraph (f) below. The total residual chlorine measurements required under subparagraph 1. may be performed by any authorized representative of the supplier of water or person constructing or altering the well but shall be performed following the appropriate procedures in the Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP-001/01 as incorporated into Rule 62-160.800, F.A.C. The total coliform or *E. coli* analyses required under subparagraph 1. shall be performed by a laboratory of the Department of Health (DOH) or a laboratory certified by the DOH to perform bacteriological analyses of drinking water and shall be performed using an appropriate method referenced in subsection 62-550.550(1), F.A.C.

1. A total of at least 20 samples – each taken on a separate but consecutive workday and taken at least six hours apart from the other samples – shall be collected after first pumping the well to waste to remove all residual chlorine and then pumping the well to waste at a rate approximately equal to that of the permanent well pump for at least 15 minutes before each sample is collected, and the samples shall be analyzed for the presence of total residual chlorine, total coliform, and *E. coli*. Upon a showing by the supplier of water, or a determination by the Department, that historical records or other circumstances warrant it, the Department shall allow the required number of samples or the sample collection interval to be modified. Under no circumstances shall the Department allow fewer than ten samples to be collected, and under no circumstances shall the Department allow more than two samples to be collected per day. If the Department allows collection of two samples per day, the samples shall be collected at least six hours apart, and the well shall be pumped to waste for at least 15 minutes before each sample is collected.

2. If any sample shows the presence of free or combined chlorine, the sample shall be considered invalid. If any sample shows the presence of *E. coli*, the well shall be considered microbially contaminated unless the Department invalidates the sample or the supplier of water determines and eliminates the source of the *E. coli*, in which case the well shall be redisinfected in accordance with paragraph (a) above and resampled in accordance with subparagraph 1. above. If more than ten percent of the total number of samples collected show the presence of total coliform or if either of the last two samples collected shows the presence of total coliform, the well shall be redisinfected as necessary in accordance with paragraph (a) above and resampled in accordance with subparagraph 1. above or shall be considered susceptible to microbial contamination. If a well is considered microbially contaminated or susceptible to microbial contamination, the supplier of water shall provide treatment that reliably achieves at least

four-log inactivation or removal of viruses in accordance with paragraph 62-555.320(12)(b), F.A.C. Additionally, the supplier of water shall conduct physical characteristics monitoring in accordance with subsection 62-550.517(2), F.A.C., when notified in writing by the Department to do so.

3. Bacteriological test results shall be considered unacceptable if the tests were completed more than 60 days before the Department received the results.

(c) Following disinfection of a well in which new pumping equipment has been installed or a well taken out of operation for maintenance that might have contaminated the well, a bacteriological evaluation of the well shall be conducted as set forth in subparagraphs 1. through 3. below unless the well is already considered microbially contaminated or susceptible to microbial contamination per subparagraph 62-555.315(6)(b)2., F.A.C., or paragraph (f) below. The total residual chlorine measurements required under subparagraph 1. may be performed by any authorized representative of the supplier of water but shall be performed following the appropriate procedures in the Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP-001/01 as incorporated into Rule 62-160.800, F.A.C. The total coliform analyses required under subparagraph 1. shall be performed by a laboratory of the Department of Health (DOH) or a laboratory certified by the DOH to perform bacteriological analyses of drinking water and shall be performed using an appropriate method referenced in subsection 62-550.550(1), F.A.C.

1. After pumping the well to waste for at least 15 minutes with zero chlorine residual, a total of at least two samples – each taken on a separate day and taken at least six hours apart from the other sample(s) – shall be collected, and the samples shall be analyzed for the presence of total residual chlorine and total coliform.

2. If any sample shows the presence of free or combined chlorine, the sample shall be considered invalid. If any sample shows the presence of total coliform, the well shall be redisinfected as necessary in accordance with paragraph (a) above and resampled in accordance with subparagraph 1. above until two consecutive samples show the absence of total coliform.

3. Bacteriological test results shall be considered unacceptable if the tests were completed more than 60 days before the Department received the results.

(d) Except as allowed under paragraph (e) below and except as allowed under any special construction permit condition established in accordance with paragraph 62-555.533(2)(f), F.A.C., no disinfected well shall be placed into, or returned to, operation until a bacteriological survey or evaluation has been completed if required by paragraph (b) or (c) above, results of the survey or evaluation have been submitted to the appropriate Department of Environmental Protection (DEP) District Office or Approved County Health Department (ACHD) if a survey or evaluation is required, and said DEP District Office or ACHD has approved the well for operation.

(e) When installing new well pumping equipment for which a public water system construction permit is not required per subsection 62-555.520(1), F.A.C., or when taking a well out of operation for maintenance that might contaminate the well, the well may be returned to operation without the Department's approval after completion of disinfection and after satisfactory completion of a bacteriological evaluation if such an evaluation is required under paragraph (c) above. If a bacteriological evaluation is required, the results of the evaluation shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department along with the next monthly operation report(s) required under paragraph 62-555.350(12)(b), F.A.C., or if no monthly operation report is required under paragraph 62-555.350(12)(b), F.A.C., within ten days after the end of the month during which the evaluation was completed.

(f) All public water systems using ground water not under the direct influence of surface water are required by subsections 62-550.518(2), (3) and (10), F.A.C., to periodically sample the raw ground water for microbiological contamination. In the event a raw water sample is positive for *E. coli*, the relevant well(s) shall be considered microbially contaminated unless the Department invalidates the sample or the supplier of water determines and eliminates the source of the *E. coli*, after which the supplier of water shall disinfect and bacteriologically survey the well(s) in accordance with paragraphs (a) and (b) above. If a raw water sample is positive for total coliform bacteria and if the relevant well(s) are not already considered microbially contaminated or susceptible to microbial contamination, the supplier of water shall disinfect and bacteriologically survey the well(s) in accordance with paragraphs (a) and (b) above when notified in writing by the Department to do so.

Rulemaking Authority 373.309, 373.337, 403.861(9) FS. Law Implemented 373.309, 403.861(12), (17) FS. History–New 11-19-87, Formerly 17-22.615, Amended 1-18-89, 5-7-90, 1-1-93, Formerly 17-555.315, Amended 8-28-03.

62-555.320 Design and Construction of Public Water Systems.

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

(1) Sound Engineering Practice. New or altered public water system components shall be designed in accordance with sound engineering practice. Engineering references are listed in Rule 62-555.330, F.A.C.

(2) Innovative or Alternative Processes and Equipment. The Department encourages the development of new treatment processes and equipment. However, construction permits for innovative or alternative treatment processes or equipment (i.e., treatment processes or equipment not covered in the engineering references listed in Rule 62-555.330, F.A.C.) shall not be issued unless construction permit applicants include in the preliminary design report or design data accompanying their permit application supporting information demonstrating to the Department that the process or equipment is capable of consistently and reliably producing drinking water meeting applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter. Supporting information shall include the following:

(a) The manufacturer's technical information;

(b) Data and reports from full-scale or pilot-plant installations that are operated under conditions comparable to those for which the process or equipment is being proposed and that are operated for a sufficient time to verify satisfactory performance of the process or equipment; and

(c) Operation and maintenance requirements and availability of technical support.

(3) Direct or Indirect Drinking Water Additives.

(a) Drinking water additives and treatment chemicals, including chemicals used to regenerate ion-exchange resins or generate disinfectants on site at treatment plants, shall conform to one of the following:

1. NSF International Standard 60 as adopted in Rule 62-555.335, F.A.C.;

2. The standards in *Water Chemicals Codex* as adopted in Rule 62-555.335, F.A.C.; or

3. The standards in *Food Chemicals Codex* as adopted in Rule 62-555.335, F.A.C.

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

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

a. NSF International Standard 61 as adopted in Rule 62-555.335, F.A.C.;

b. NSF International Standard 42, 44, 53, 55, 58, or 62 as adopted in Rule 62-555.335, F.A.C.;

c. Section 6 of NSF International Standard 14 as adopted in Rule 62-555.335, F.A.C.; or

d. The Food and Drug Administration's regulations for indirect food additives as contained in the April 1, 2002, revision of 21 CFR Parts 174 through 189, which are incorporated herein by reference.

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

a. NSF International Standard 61 as adopted in Rule 62-555.335, F.A.C.; or

b. The Food and Drug Administration's regulations for secondary direct food additives from ion-exchange resins as contained in the April 1, 2002, revision of 21 CFR 173.25, which is incorporated herein by reference.

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

a. All cement, admixtures, form release agents, curing compounds, and sealers used in or on the concrete or mortar shall conform to NSF International Standard 61 as adopted in Rule 62-555.335, F.A.C.

b. Aggregate used in the concrete or mortar shall be clean (i.e., free of excess clay, silt, mica, organic matter, chemical salts, and coated grains) and shall be essentially free of those metals and radionuclides regulated under applicable primary drinking water standards.

c. Water used in the concrete or mortar shall meet applicable primary drinking water standards for inorganics, organics, and radionuclides.

(c) To determine or document whether drinking water additives or treatment chemicals or public water system components conform to the standards, regulations, or requirements listed in paragraph (a) or (b) above, suppliers of water or construction permit applicants may conduct their own evaluations or may rely upon third-party or manufacturer certifications.

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

1. Documentation that components conforming to the applicable standards, regulations, or requirements in paragraph (b) are not readily available; and

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

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

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

(6) Capacity of Drinking Water Source and Treatment Facilities. The total capacity of all water source and treatment facilities connected to a water system shall at least equal the water system's design maximum-day water demand (including design fire-flow demand if fire protection is being provided). Applicants for a permit to construct or alter a drinking water treatment plant's source water or treatment facilities shall establish in the preliminary design report or drawings, specifications, and design data accompanying their permit application the design maximum-day capacity of the plant's source water facilities and the plant's treatment facilities and, if the plant is being designed to meet peak water demand or to supplement finished-drinking-water storage facilities in meeting peak water demand, the design peak capacity of the plant's source water facilities and the plant's treatment facilities. In turn, the Department shall specify in its construction permit for the plant's new or altered source water or treatment facilities the permitted maximum-day operating capacity of the plant and, if the plant is being designed to meet peak water demand or to supplement finished-water storage facilities in meeting peak water demand, the permitted peak operating capacity of the plant. The Department shall not specify a permitted plant operating capacity greater than the design capacity of the plant's treatment facilities as established by the applicant. However, the Department shall specify a permitted plant operating capacity less than the design capacity of the plant's treatment facilities if the actual design capacity of the plant's source water facilities, regardless of any water use permit limitations set by the water management district, is less than the design capacity of the plant's treatment facilities; in such a case:

(a) The construction permit for the plant's new or altered source water or treatment facilities shall indicate the design capacity of the plant's treatment facilities, shall state that permitted plant operating capacity is being limited because of the actual design capacity of the plant's source water facilities, and shall specify a permitted plant operating capacity equal to the actual design capacity of the plant's source water facilities.

(b) Each subsequent construction permit for new or altered source water facilities for the plant shall update the permitted plant operating capacity as appropriate.

(7) Raw Surface Water Pumping Stations. At each raw surface water pumping station that is constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, and that is connected to a community water system (CWS) serving, or designed to serve, 350 or more persons or 150 or more service connections, the supplier of water shall provide an installed or uninstalled standby pump of sufficient capacity to replace the largest pump. However, for CWSs that have multiple pumping stations subject to this requirement, the supplier of water may provide one uninstalled standby pump for each size of raw surface water pump installed in the water system instead of providing a standby pump on site at each raw surface water pumping station; and for CWSs that have only one pumping station subject to this requirement and that are designed to serve 10,000 or fewer persons, as many as three water systems located in the same county, or within 50 miles of one another, may enter into a mutual aid agreement to share one appropriately sized, uninstalled standby pump instead of providing a standby pump on site at each water system's raw surface water pumping station.

(8) Well Pump Housing, Well Pump Discharge Piping, and Well Pump Appurtenances.

(a) Housing of Well Pumps.

1. Well pumps shall be housed in a weatherproof building, room, or pit unless the pumps are submersible or completely weatherproof, in which case the pumps need only be protected against tampering, vandalism, and sabotage in accordance with subsection (5) above.

2. Well pumphouses (i.e., buildings or rooms) for which the Department receives a complete construction permit application on or after August 28, 2003, shall have a concrete floor that is elevated above the adjacent finished ground surface and that is sloped to drain away from wells and well pumps. In addition, such well pumphouses shall have an access opening or removable roof or walls as necessary to provide full access for servicing wells and well pumps.

3. Well pump pits are allowed only where the finished ground surface is above the 100-year flood elevation and, in coastal areas subject to flooding by wave action, the 100-year wave-action elevation. All pump pit access openings shall have watertight covers or shall be flanged upward and provided with overlapping covers, and all pump pits shall be drained by gravity or by dual sump pumps with an alarm system that is activated in the event either sump pump fails. Sump pump alarm systems shall include an audio-visual alarm near the pump pit, and if the pump pit is not at a site staffed 24 hours per day and seven days per week, the alarm also shall be telemetered to a place staffed 24 hours per day and seven days per week, or shall trigger an automatic telephone dialing or paging device, to enable notification of an authorized representative of the supplier of water. Pump pits for which the Department receives a complete construction permit application on or after August 28, 2003, shall have an opening as necessary to provide full access for servicing wells and well pumps and shall have a concrete floor sloped to drain away from wells and well pumps.

(b) Well Pump Discharge Piping.

1. New or altered discharge piping shall be designed and constructed in accordance with Section 3.2.7.3 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C., except that a check valve is not required in the discharge piping from a jet pump and except that the required smooth-nosed sampling tap shall be located as specified in subparagraph 2. below.

2. The discharge piping from each well pump shall include a smooth-nosed tap for sampling raw well water. All such sampling taps shall be located upstream of the check valve in the discharge piping if possible and upstream of all treatment facilities and chemical application points; shall be located at least 12 inches above the finished floor, pad, or ground surface below the tap; and shall be conveniently accessible and downward-opening. Raw well water sampling taps installed on or after August 28, 2003, except those installed under a construction permit for which the Department received a complete application before August 28, 2003, shall have no interior or exterior threads.

(c) Well Vents. Well pumps installed on or after August 28, 2003, except those installed under a construction permit for which the Department received a complete application before August 28, 2003, shall pump from a well that is vented to the atmosphere unless the well pump is a packer-type jet pump, the well casing also serves as well pump suction piping, the well is a flowing artesian well, there is no appreciable drawdown in the well, or the supplier of water provides justification for not venting the well to the atmosphere. All well vents shall terminate at least 12 inches above the 100-year flood elevation and, in coastal areas subject to flooding by wave action, at least 12 inches above the 100-year wave-action elevation. New or altered well vents shall be designed and constructed in accordance with Section 3.2.7.5 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C.

(9) Odor Control at Drinking Water Treatment Plants. Drinking water treatment plants shall comply with the objectionable odor prohibition under subsection 62-296.320(2), F.A.C. ("Objectionable odor" is defined in Rule 62-210.200, F.A.C.) Applicants for a

permit to construct or alter drinking water treatment facilities, except those applicants who have submitted a complete application to the Department before August 28, 2003, shall provide in the preliminary design report or drawings, specifications, and design data accompanying their permit application assurance of compliance with subsection 62-296.320(2), F.A.C. Assurance of compliance may be based upon water quality data; use of appropriate water treatment processes and chemicals; proper treatment of vented gases; use of mitigative measures such as buffer zones owned or under the control of the supplier of water; etc.

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

(11) Alarms for Nitrate/Nitrite Removal Equipment. An alarm system shall be provided for any drinking water treatment plant equipment that is installed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, and that is necessary to achieve compliance with the primary drinking water standard for nitrate or nitrite. The alarm system shall be activated in the event of equipment failure and shall include an audio-visual alarm at the plant. If the plant is not staffed during all hours the plant is in operation, the alarm also shall be telemetered to a place staffed during all hours the plant is in operation, or shall trigger an automatic telephone dialing or paging device, to enable notification of an appropriately licensed water treatment plant operator.

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

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

(b) Suppliers of water using ground water that is not under the direct influence of surface water but that is from a well considered microbially contaminated or susceptible to microbial contamination per paragraph 62-555.315(6)(b) or (f), F.A.C., shall provide treatment that reliably achieves at least four-log (99.99 percent) inactivation or removal of viruses before or at the first customer at all flow rates. Additionally, by no later than December 31, 2005, suppliers of water using ground water that is not under the direct influence of surface water but that is exposed during treatment to the open atmosphere and possible microbial contamination shall provide treatment that reliably achieves at least four-log inactivation or removal of viruses before or at the first customer at all flow rates. For the purpose of this paragraph, aerators and other facilities that are protected against contamination from birds, insects, wind-borne debris, rainfall, and drainage are not considered to be exposing water to the open atmosphere and possible microbial contamination. Direct filtration and diatomaceous-earth filtration are considered to be achieving one-log (90 percent) removal of viruses when properly operated, and conventional filtration treatment and slow sand filtration are considered to be achieving two-log (99 percent) removal of viruses when properly operated. Chemical disinfection using free chlorine, chlorine dioxide, or ozone and chemical disinfection using chloramines with chlorine added prior to ammonia are considered to be achieving two-log, three-log (99.9 percent), or four-log inactivation of viruses when meeting the applicable CT value listed in Appendix E of the *Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources* as adopted in Rule 62-555.335, F.A.C.

(c) Disinfectant contact time shall be calculated or determined as described in the definition of "disinfectant contact time" under Rule 62-550.200, F.A.C.

(d) All suppliers of water shall maintain a minimum free chlorine residual of 0.2 milligram per liter, or a minimum combined chlorine residual of 0.6 milligram per liter or an equivalent chlorine dioxide residual, throughout their drinking water distribution system at all times.

(13) Chlorination Facilities for Disinfection of Drinking Water.

(a) Gas Chlorination Facilities.

1. New chlorinators shall be the vacuum-operated, solution-feed type.

2. Chlorinator capacity shall be such that any applicable minimum CT value and the minimum residual disinfectant level specified in paragraph 62-555.320(12)(d), F.A.C., and subsection 62-555.350(6), F.A.C., can be maintained when maximum chlorine demand coincides with maximum flow rate at the point of chlorine application.

3. At each drinking water treatment plant that is using gas chlorination facilities to achieve *Giardia lamblia* or virus inactivation in accordance with paragraph 62-555.320(12)(a) or (b), F.A.C.; at each treatment plant that is using gas chlorination facilities for disinfection and that is connected to a community water system (CWS) having an actual or design average daily chlorine consumption equaling or exceeding ten pounds per day; and at each treatment plant that has gas chlorine disinfection facilities constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, and that is connected to a CWS serving, or designed to serve, 350 or more persons or 150 or more service connections, the supplier of water shall provide installed or uninstalled standby gas chlorination equipment (i.e., a standby chlorinator, including a standby vacuum regulator and a standby eductor, which is also referred to as an injector or ejector; a standby booster pump where booster pumps are used; and a standby evaporator where evaporators are used) of sufficient capacity to replace the largest equipment. However, for water systems that have multiple interconnected plants subject to this requirement, the supplier of water may provide one uninstalled standby for each type and size of gas chlorination equipment installed in the water system instead of providing standby gas chlorination equipment on site at each plant; and for water systems that have only one plant subject to this requirement and that are designed to serve 10,000 or fewer persons, as many as three water systems located in the same county, or within 50 miles of one another, may enter into a mutual aid agreement to share appropriately sized, uninstalled standby gas chlorination equipment instead of providing standby gas chlorination equipment on site at each water system's plant.

4. At each drinking water treatment plant that is using gas chlorination facilities to achieve *Giardia lamblia* or virus inactivation in accordance with paragraph 62-555.320(12)(a) or (b), F.A.C.; at each treatment plant that is using gas chlorination facilities for disinfection and that is connected to a community water system (CWS) having an actual or design average daily chlorine consumption equaling or exceeding ten pounds per day; and at each treatment plant that has gas chlorine disinfection facilities constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, and that is connected to a CWS serving, or designed to serve, 350 or more persons or 150 or more service connections, the supplier of water shall provide devices for automatic switch-over of chlorine cylinders or containers.

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

6. Scales shall be provided to accurately weigh chlorine cylinders or containers in use.

7. Chlorine shall be rapidly and thoroughly mixed with all drinking water being treated.

8. Chlorine storage and feed facilities shall be located in a room or area separate from other operating areas. If chlorine storage or feed facilities are enclosed in a room, the room shall be located at ground level and shall be provided with floor-level ventilation. New or altered chlorine rooms shall be designed and constructed in accordance with Section 5.4.1 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C. If chlorine storage or feed facilities are not enclosed in a room, they shall be shielded from direct sunlight and rain and shall be located at ground level in an area that either has adequate natural ventilation or is equipped with a mechanical ventilation system. For the purpose of this subparagraph, an area is considered to have adequate natural ventilation if walls are not completely obstructing more than one side of the perimeter of the area. New or altered mechanical ventilation systems for chlorine storage or feed areas shall meet applicable requirements in Section 5.4.1.c of *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C.

9. At each drinking water treatment plant that is using gas chlorination facilities to achieve *Giardia lamblia* or virus inactivation in accordance with paragraph 62-555.320(12)(a) or (b), F.A.C., and at each treatment plant that is using gas chlorination facilities for disinfection and that is connected to a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections, the supplier of water shall provide an audio-visual alarm system that is activated by high- and low-vacuum

switches, a continuous chlorine residual analyzer, or a continuous oxidation-reduction potential meter to indicate loss of chlorination capability or chlorine residual. If the plant is not staffed during all hours the plant is in operation, the alarm also shall be telemetered to a place staffed during all hours the plant is in operation, or shall trigger an automatic telephone dialing or paging device, to enable notification of an appropriately licensed water treatment plant operator.

10. Suppliers of water shall provide the following safety or protective equipment at drinking water treatment plants with gas chlorination facilities.

a. At each treatment plant with gas chlorination facilities, the supplier of water shall provide in a convenient location, but not inside any room where chlorine is stored or handled, a self-contained breathing apparatus (SCBA) meeting the requirements of the National Institute for Occupational Safety and Health. However, for water systems that have multiple interconnected plants withdrawing chlorine from only 150-pound or smaller cylinders, the supplier of water may provide an SCBA in each vehicle used by plant operators instead of providing an SCBA at each plant withdrawing chlorine from only 150-pound or smaller cylinders.

b. At each treatment plant with gas chlorination facilities, the supplier of water shall provide appropriate protective equipment in accordance with Table 15.5 in *Water Treatment Plant Design* as incorporated into Rule 62-555.330, F.A.C., except that the supplier of water shall provide a self-contained breathing apparatus in accordance with sub-subparagraph a. above instead of providing a gas mask in accordance with this sub-subparagraph and Table 15.5.

c. At each treatment plant withdrawing chlorine from ton containers or tank cars or trucks, the supplier of water shall provide continuous chlorine leak detection equipment that is connected to an alarm system. The alarm system shall include an audio-visual alarm at the plant, and if the plant is not staffed 24 hours per day and seven days per week, the alarm also shall be telemetered to a place staffed 24 hours per day and seven days per week, or shall trigger an automatic telephone dialing or paging device, to enable notification of an authorized representative of the supplier of water.

d. At each treatment plant withdrawing chlorine from ton containers or tank cars or trucks, the supplier of water shall provide an emergency chlorine leak repair kit meeting the requirements of the Chlorine Institute.

(b) Hypochlorination Facilities.

1. New hypochlorinators shall be positive displacement metering pumps or accurate vacuum-operated dosers.

2. Hypochlorinator capacity shall be such that any applicable minimum CT value and the minimum residual disinfectant level specified in paragraph 62-555.320(12)(d), F.A.C., and subsection 62-555.350(6), F.A.C., can be maintained when maximum chlorine demand coincides with maximum flow rate at the point of hypochlorite application.

3. At each drinking water treatment plant that is using hypochlorination facilities to achieve Giardia lamblia or virus inactivation in accordance with paragraph 62-555.320(12)(a) or (b), F.A.C.; at each treatment plant that is using hypochlorination facilities for disinfection and that is connected to a community water system (CWS) having an actual or design average daily chlorine consumption equaling or exceeding ten pounds per day; and at each treatment plant that has hypochlorite disinfection facilities constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, and that is connected to a CWS serving, or designed to serve, 350 or more persons or 150 or more service connections, the supplier of water shall provide installed or uninstalled standby hypochlorination equipment (i.e., a standby electrolytic generator and brine pump where sodium hypochlorite is generated on site; a standby metering pump where metering pumps are used; a standby doser, including a standby vacuum regulator and a standby eductor, which is also referred to as an injector or ejector, where vacuum-operated dosers are used; and a standby booster pump where booster pumps are used) of sufficient capacity to replace the largest equipment. However, for water systems that have multiple interconnected plants subject to this requirement, the supplier of water may provide one uninstalled standby for each type and size of hypochlorination equipment installed in the water system instead of providing standby hypochlorination equipment on site at each plant; and for water systems that have only one plant subject to this requirement and that are designed to serve 10,000 or fewer persons, as many as three water systems located in the same county, or within 50 miles of one another, may enter into a mutual aid agreement to share appropriately sized, uninstalled standby hypochlorination equipment instead of providing standby hypochlorination equipment on site at each water system's plant.

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

5. Hypochlorite metering pumps shall have antisiphon protection. For new or altered hypochlorination facilities, the antisiphon protection for metering pumps shall be in accordance with Section 5.1.5 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C.

6. For sodium hypochlorite facilities that are constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, and that include a metering pump:

a. The pump shall be located as close as possible to, and lower than, the hypochlorite source with the pump suction line sloping upward from the pump to the hypochlorite source; or

b. The hypochlorite facilities shall be otherwise designed to prevent gas binding of the pump.

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

a. Hypochlorinator suction lines shall be located with the intake above the bottom of the hypochlorite container or shall be equipped with a strainer; or

b. The hypochlorination facilities shall be otherwise designed to avoid feeding sediment into the drinking water.

8. Sodium hypochlorite shall not be stored or handled together with any acid or any ammonia or organic compound, and calcium hypochlorite shall not be stored or handled together with any acid or any combustible, organic, or oxidizable material. The storage of sodium hypochlorite shall be carefully managed to limit degradation of the hypochlorite and to limit formation of chlorate; alternative approaches for managing sodium hypochlorite storage are discussed on page 243 in *Water Treatment Plant Design* as incorporated into Rule 62-555.330, F.A.C. Tanks for bulk storage of sodium hypochlorite shall have a liquid-level indicator, a vent, and an overflow discharging to a basin capable of containing accidental spills or overflows without uncontrolled discharge. Where bulk storage of sodium hypochlorite is provided, a day tank also shall be provided unless there is an alternative means for accurately measuring the daily amount of hypochlorite fed and there are alternative safeguards (e.g., continuous chlorine residual monitoring; audio-visual alarms activated by high chlorine residual levels; and staffing at the water treatment plant, or at a monitoring and control center for the plant, during all hours the plant is in operation) that maintain a similar level of protection against overfeeding of hypochlorite. Sodium hypochlorite bulk storage tanks that are installed on or after August 28, 2003, and that cannot be completely drained to a day tank shall be equipped with a valved drain to allow for complete drainage and periodic cleaning of the bulk storage tank; however, this requirement does not apply to bulk storage tanks installed under a construction permit for which the Department received a complete application before August 28, 2003.

9. Hypochlorite solution or day tanks shall have a lid or cover, shall have a valved drain, and shall be scale-mounted or have a means for measuring the liquid level in the tank. For new or altered hypochlorination facilities, solution or day tanks shall be designed and constructed in accordance with Sections 5.1.10 and 5.1.11 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C.

10. Hypochlorite shall be rapidly and thoroughly mixed with all drinking water being treated.

11. Housing for new or altered hypochlorite storage or feed facilities shall be designed and constructed in accordance with Section 5.1.14 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C. Waste hydrogen from on-site sodium hypochlorite generation systems constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, shall be vented directly to the outside atmosphere using a dilution air blower as necessary to ensure the concentration of hydrogen always will be below the explosion level.

12. At each drinking water treatment plant that is using hypochlorination facilities to achieve *Giardia lamblia* or virus inactivation in accordance with paragraph 62-555.320(12)(a) or (b), F.A.C., and at each treatment plant that has hypochlorite disinfection facilities constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, and that is connected to a CWS serving, or designed to serve, 350 or more persons or 150 or more service connections, the supplier of water shall provide an audio-visual alarm system that is activated by high- and low-pressure switches, a low-flow switch or flow meter, high- and low-vacuum switches, a continuous chlorine residual analyzer, or a continuous oxidation-reduction potential meter to indicate loss of hypochlorination capability or chlorine residual. If the plant is not staffed during all hours the plant is in operation, the alarm also shall be telemetered to a place staffed during all hours the plant is in operation, or shall trigger an automatic telephone dialing or paging device, to enable notification of an appropriately licensed water treatment plant operator.

13. At each drinking water treatment plant with hypochlorination facilities, the supplier of water shall provide appropriate safety or protective equipment in accordance with Table 15.5 in *Water Treatment Plant Design* as incorporated into Rule 62-555.330,

F.A.C.

(14) Standby Power.

(a) By no later than December 31, 2005, each community water system (CWS) serving, or designed to serve, 350 or more persons or 150 or more service connections shall provide standby power for operation of that portion of the system's water source, treatment, and pumping facilities necessary to deliver drinking water meeting all applicable primary or secondary standards at a rate at least equal to the average daily water demand for the system. If a CWS interconnects with another CWS to meet this requirement, the portion of the combined systems' components provided with standby power shall be sufficient to deliver water at a rate at least equal to the average daily water demand for the combined systems.

(b) Where standby power is required under paragraph (a) above, it shall be provided through:

1. Connection to at least two independent power feeds from separate substations; or

2. One or more auxiliary power sources (i.e., generators or engines).

(c) Where standby power is required under paragraph (a) above and is provided through connection to independent power feeds from separate substations, the power feeds shall not be located in the same conduit or supported from the same utility pole and, if overhead power feeds are used, shall not cross or be located in an area where a single plausible occurrence (e.g., a fallen tree) could disrupt both power feeds.

(d) Where standby power is required under paragraph (a) above and is provided through an auxiliary power source, an in-place auxiliary power source is preferred. A portable auxiliary power source may be provided only if all of the following conditions are met:

1. A system to automatically start up the auxiliary power source and transfer electrical loads is not required under paragraph (e) below.

2. The supplier of water demonstrates that the water system has first priority for use of the portable auxiliary power source.

3. The supplier of water demonstrates that the portable auxiliary power source will at all times be in reasonably close proximity to (i.e., within 25 miles of) the water system components for which standby power is required.

(e) Where standby power is required under paragraph (a) above and the time delay required to manually transfer electrical loads from one power source to another could result in failure to maintain the minimum water distribution system pressure required under subsection 62-555.350(7), F.A.C., the supplier of water shall provide a system to automatically start up the auxiliary power source if an auxiliary power source is provided and to automatically transfer electrical loads.

(f) At each site where standby power is required under paragraph (a) above, the supplier of water shall provide by December 31, 2005, an audio-visual alarm system that is activated in the event any power source fails. If the site is not staffed during all hours the standby-powered water system components are in operation, the alarm also shall be telemetered to a place staffed during all hours the standby-powered water system components are in operation, or shall trigger an automatic telephone dialing or paging device, to enable notification of an authorized representative of the supplier of water.

(15) High-Service or Booster Pumps. For purposes of this subsection, well pump installations shall be considered high-service pumping stations if the well pumps serve as high-service pumps.

(a) Unless elevated finished-drinking-water storage is provided, the total capacity of all high-service pumping stations connected to a water system, or the capacity of a booster pumping station, shall be sufficient to:

1. Meet at least the water system's, or the booster station service area's, peak-hour water demand (and if fire protection is being provided, meet at least the water system's, or the booster station service area's, design fire-flow rate plus a background water demand equivalent to the maximum-day demand other than fire-flow demand); and

2. Maintain a minimum gauge pressure of 20 pounds per square inch throughout the water system's, or the booster station service area's, distribution system up to each customer's point of connection to the distribution system.

(b) Where elevated finished-drinking-water storage is provided, the total capacity of all high-service pumping stations connected to a water system, or the capacity of a booster pumping station, shall be sufficient to at least meet the water system's, or the booster station service area's, maximum-day water demand (including design fire-flow demand if fire protection is being provided) and to maintain distribution system pressure as specified in subparagraph 62-555.320(15)(a)2., F.A.C. In addition, the total capacity of the high-service pumping stations, or the capacity of the booster pumping station, combined with the useful elevated finished-water storage capacity shall be sufficient to meet the water system's, or the booster station service area's, peak-hour water demand for at least four consecutive hours (and if fire protection is being provided, shall be sufficient to meet the water system's, or the booster station service area's, design fire-flow rate plus a background water demand equivalent to the maximum-

day demand other than fire-flow demand for the design fire-flow duration).

(c) At each high-service or booster pumping station that is constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, and that is connected to a community water system (CWS) serving, or designed to serve, 350 or more persons or 150 or more service connections, the supplier of water shall provide an installed or uninstalled standby pump of sufficient capacity to replace the largest pump. However, for CWSs that have multiple interconnected pumping stations subject to this requirement, the supplier of water may provide one uninstalled standby pump for each size of high-service or booster pump installed in the water system instead of providing a standby pump on site at each high-service or booster pumping station; and for water systems that have only one pumping station subject to this requirement and that are designed to serve 10,000 or fewer persons, as many as three water systems located in the same county, or within 50 miles of one another, may enter into a mutual aid agreement to share one appropriately sized, uninstalled standby pump instead of providing a standby pump on site at each water system's high-service or booster pumping station.

(16) Finished-Drinking-Water Meters. All water treatment plants that are connected to a community water system and water treatment plants that are connected to a non-community water system and that are constructed or altered under a construction permit for which the Department receives a complete application on or after August 28, 2003, shall be equipped with a totalizing flow meter to measure the net quantity of finished drinking water, excluding any filter backwash water, produced at the plant each day. All other drinking water treatment plants shall be equipped with at least elapsed time meters that can be used in conjunction with calibrated pumps to measure the net quantity of finished drinking water produced at the plant each day.

(17) Finished-Drinking-Water Sampling Taps. A conveniently accessible sampling tap shall be provided at each entry point to a drinking water distribution system (i.e., at each point where drinking water source and treatment facilities discharge to a drinking water distribution system) so that samples of finished drinking water may be taken in accordance with subsection 62-550.500(5), F.A.C. Each such sampling tap shall be located downstream from all water treatment processes at a point where all treatment chemicals have been thoroughly mixed with the water and shall be located upstream from all water customers. If a water system draws water from more than one source and combines the sources before distribution, a single finished-water sampling tap may be provided downstream from where all of the sources are combined at a point where all of the sources have been thoroughly mixed together.

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

(19) Finished-Drinking-Water Storage Capacity. This subsection addresses finished-water storage capacity necessary for operational equalization to meet peak water demand. (If fire protection is being provided, additional finished-water storage capacity shall be provided as necessary to meet the design fire-flow rate for the design fire-flow duration.) The finished-water storage capacity necessary to meet the peak water demand for a consecutive system may be provided by the consecutive system or by a wholesale system delivering water to the consecutive system.

(a) Except as noted in paragraph (b) below, the total useful finished-water storage capacity (excluding any storage capacity for fire protection) connected to a water system shall at least equal 25 percent of the system's maximum-day water demand, excluding any design fire-flow demand.

(b) A total useful finished-water storage capacity less than that specified in paragraph (a) above is acceptable if the supplier of water or construction permit applicant makes one of the following demonstrations:

1. A demonstration consistent with Section 10.6.3 in *Water Distribution Systems Handbook* as incorporated into Rule 62-555.330, F.A.C., showing that the water system's total useful finished-water storage capacity (excluding any storage capacity for fire protection) is sufficient for operational equalization.

2. A demonstration showing that, in conjunction with the capacity of the water system's source, treatment, and finished-water pumping facilities, the water system's total useful finished-water storage capacity (excluding any storage capacity for fire protection) is sufficient to meet the water system's peak-hour water demand for at least four consecutive hours. For small water systems with hydropneumatic tanks that are installed under a construction permit for which the Department receives a complete application on or after August 28, 2003, the supplier of water or construction permit applicant also shall demonstrate that, in conjunction with the capacity of the water system's source, treatment, and finished-water pumping facilities, the water system's total useful finished-water storage capacity (i.e., the water system's total effective hydropneumatic tank volume) is sufficient to meet the

water system's peak instantaneous water demand for at least 20 consecutive minutes.

(20) Hydropneumatic Tanks. New hydropneumatic tanks, including bladder- or diaphragm-type tanks, shall be designed and constructed in accordance with Section 7.2 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C., except that:

(a) The tanks need not be housed.

(b) Tanks installed on or after August 28, 2003, except those installed under a construction permit for which the Department received a complete application before August 28, 2003, shall have an automatic air or pressure relief valve.

(c) Bladder- or diaphragm-type tanks need not have an access manhole, water sight glass, or means for adding air other than a recharging valve.

(21) Drinking Water Piping and Appurtenances.

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

1. Asbestos-cement water mains shall be pressure and leakage tested in accordance with American Water Works Association (AWWA) Standard C603 as incorporated into Rule 62-555.330, F.A.C., and polyvinyl chloride water mains shall be pressure and leakage tested in accordance with AWWA Standard C605 as incorporated into Rule 62-555.330, F.A.C., while all other types of water mains shall be pressure and leakage tested in accordance with AWWA Standard C600 as incorporated into Rule 62-555.330, F.A.C.

2. Water mains and appurtenances that normally convey surface water, or ground water under the direct influence of surface water, and that are located upstream of all filtration and disinfection treatment facilities need not be disinfected.

3. All water mains and appurtenances other than those described in subparagraph 2. above shall be disinfected and bacteriologically evaluated in accordance with Rule 62-555.340, F.A.C.

(b) All new or altered piping, including treatment plant process piping, and appurtenances conveying finished drinking water shall be designed and constructed in accordance with Sections 8.0 through 8.5 and 8.7 through 8.11 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C., except that:

1. Asbestos-cement water mains shall be pressure and leakage tested in accordance with American Water Works Association (AWWA) Standard C603 as incorporated into Rule 62-555.330, F.A.C., and polyvinyl chloride water mains shall be pressure and leakage tested in accordance with AWWA Standard C605 as incorporated into Rule 62-555.330, F.A.C., while all other types of water mains shall be pressure and leakage tested in accordance with AWWA Standard C600 as incorporated into Rule 62-555.330, F.A.C.

2. All water mains and appurtenances shall be disinfected and bacteriologically evaluated in accordance with Rule 62-555.340, F.A.C.

3. All water main pipe, including fittings, installed on or after August 28, 2003, except pipe installed under a construction permit for which the Department received a complete application before August 28, 2003, shall be color coded or marked using blue as a predominant color to differentiate drinking water from reclaimed or other water. Underground plastic pipe shall be solid-wall blue pipe, shall have a co-extruded blue external skin, or shall be white or black pipe with blue stripes incorporated into, or applied to, the pipe wall; and underground metal or concrete pipe shall have blue stripes applied to the pipe wall. Pipe striped during manufacturing of the pipe shall have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 90-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape or paint is used to stripe pipe during installation of the pipe, the tape or paint shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe; for pipes with an internal diameter of 24 inches or greater, tape or paint shall be applied in continuous lines along each side of the pipe as well as along the top of the pipe. Aboveground pipe at drinking water treatment plants shall be color coded and labeled in accordance with subsection 62-555.320(10), F.A.C., and all other aboveground pipe shall be painted blue or shall be color coded or marked like underground pipe.

(c) The Department shall allow the use of pipe and appurtenances that do not conform to applicable American Water Works Association (AWWA) standards as incorporated into Rule 62-555.330, F.A.C., only if suppliers of water or construction permit applicants provide documentation showing that the alternate pipe and appurtenances provide strength, durability, reliability, and public health protection at least equal to that provided by pipe and appurtenances that conform to applicable AWWA standards.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.861(7) FS. History–New 11-19-87, Formerly 17-22.620, Amended 1-18-89, 5-7-90, 1-

1-93, 3-8-94, Formerly 17-555.320, Amended 8-28-03.

62-555.322 Prohibition on Use of Lead Pipe, Solder, and Flux.

(1) As of January 18, 1989, any pipe, pipe fitting, solder, and flux that is used in the construction, alteration, or repair of any public water system shall be lead free as defined in subsection (2) below, and as of August 28, 2003, any plumbing fitting or fixture that is intended to dispense water for human consumption and that is used in the construction, alteration, or repair of any public water system shall be lead free as defined in subsection (2) below. This subsection shall not apply to leaded joints necessary for the repair of cast iron pipes.

(2) The phrase "lead free" shall mean:

(a) When used with respect to solder and flux, solder and flux containing not more than 0.2 percent lead;

(b) When used with respect to pipe and pipe fittings, pipe and pipe fittings containing not more than 8.0 percent lead; and

(c) When used with respect to plumbing fittings and fixtures intended to dispense water for human consumption, plumbing fittings and fixtures in compliance with Section 9 of NSF International Standard 61 as adopted in Rule 62-555.335, F.A.C.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.853(1) FS. History–New 1-18-89, Formerly 17-555.322, Amended 8-28-03.

62-555.325 Fluoridation.

(1) Fluoride levels in drinking water shall not exceed the primary maximum contaminant level under Rule 62-550.310, F.A.C., or the secondary maximum contaminant level under Rule 62-550.320, F.A.C. The recommended optimal fluoride concentration for fluoridated community water systems is 0.8 milligram per liter. The recommended fluoride control range for fluoridated community water systems is 0.7 to 1.3 milligrams per liter.

(2) Equipment and Installation.

(a) Fluoride chemicals shall be fed into drinking water proportional to flow. Where the flow rate is reasonably constant, this may be accomplished by electrically interconnecting fluoride metering pumps with well or service pumps or by otherwise designing fluoride metering pumps to operate only when well or service pumps operate. Automatic flow proportioning control of fluoride metering pumps shall be provided where the flow rate varies significantly (i.e., where the flow rate varies by more than 20 percent).

(b) Fluoride metering pumps shall have antisiphon protection.

(c) Tanks and containers holding fluorosilicic acid shall be vented only to the outside atmosphere.

(d) Scales, loss-of-weight recorders, liquid-level indicators, or flow meters, as appropriate, shall be provided to accurately measure quantities of fluoride chemicals used.

(e) At each drinking water treatment plant with fluoridation facilities, the supplier of water shall provide appropriate safety or protective equipment in accordance with Table 15.5 in *Water Treatment Plant Design* as incorporated into Rule 62-555.330, F.A.C.

(f) Suppliers of water who fluoridate their water shall provide analytical equipment that uses the colorimetric or ion electrode method to measure the fluoride concentration in the treated water.

(g) New or altered fluoridation facilities shall be designed and constructed in accordance with Section 4.7 and Part 5 in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C., and in accordance with *Water Fluoridation: A Manual for Engineers and Technicians* as incorporated into Rule 62-555.330, F.A.C.

(3) Quality Assurance and Reporting.

(a) For each drinking water treatment plant fluoridating water, the supplier of water shall measure and record daily the quantity of fluoride chemical used, calculate and record daily the fluoride dose, and measure and record daily the fluoride concentration in the finished drinking water at the entry to the drinking water distribution system. The daily measurements of fluoride concentration in finished water may be performed by any authorized representative of the supplier of water but shall be performed using an appropriate method referenced in subsection 62-550.550(1), F.A.C. If the daily measurements of fluoride concentration in finished water are not performed by a laboratory certified by the Department of Health to perform fluoride analyses of drinking water, the supplier of water shall collect check samples and have them analyzed in accordance with paragraph (b) below.

(b) For each public water system (PWS) fluoridating water and not using a certified laboratory to perform all daily measurements of fluoride concentration in the finished drinking water from each of the PWS's treatment plants, the supplier of water shall collect two check samples per month from the PWS's distribution system. Each check sample shall be "split" into two

samples, one which shall be analyzed by an authorized representative of the supplier of water and one which shall be analyzed by a laboratory of the Department of Health or a laboratory certified by the Department of Health to perform fluoride analyses of drinking water.

(c) For each drinking water treatment plant fluoridating water, the supplier of water shall report the information required under paragraph (a) above and, if applicable, the results of the analyses required under paragraph (b) above to the Department of Health's Bureau of Dental Health within ten days after each month of operation using Form 62-555.900(5), Monthly Operation Report for PWSs Fluoridating Water, hereby adopted and incorporated by reference, effective August 28, 2003. Copies of this form are available from the Department of Environmental Protection, Drinking Water Section, M.S. 3520, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(4) The Department of Health's Bureau of Dental Health is authorized to conduct inspections of fluoridation facilities at public water systems.

Rulemaking Authority 403.853(3), 403.861(6), (9), 403.862(1) FS. Law Implemented 403.852(12), (13), 403.853(3), (5) FS. History–New 11-19-87, Formerly 17-22.625, Amended 1-18-89, 1-3-91, Formerly 17-555.325, Amended 8-28-03.

62-555.330 Engineering References for Public Water Systems.

In addition to the requirements of this chapter, the requirements and standards contained in the following technical publications are hereby incorporated by reference and shall be applied in determining whether permits to construct or alter public water system components, excluding wells (but including well pumping equipment and appurtenances), shall be issued or denied. Each of these publications is available from the publisher or source listed for the publication. The specific requirements contained in this chapter supersede the requirements and standards contained in these publications. Where there are conflicts between these publications, suppliers of water and construction permit applicants shall comply with any one of the publications. Where there are multiple options or alternatives in these publications, suppliers of water and construction permit applicants shall comply with any one of the options or alternatives. The Department shall allow exceptions to the requirements and standards in these publications if suppliers of water or construction permit applicants provide justification for each exception and provide alternative design and construction features that achieve the same purpose and that afford a similar level of strength, durability, reliability, and public health protection.

(1) *Water Quality and Treatment: A Handbook of Community Water Supplies*, Fifth Edition, 1999, American Water Works Association. Published by McGraw-Hill, Post Office Box 182604, Columbus, OH 43218-2605.

(2) *Water Treatment Plant Design*, Third Edition, 1997, American Society of Civil Engineers and American Water Works Association. Published by McGraw-Hill, Post Office Box 182604, Columbus, OH 43218-2605.

(3) *Recommended Standards for Water Works*, 1997 Edition, Great Lakes – Upper Mississippi River Board of State Public Health and Environmental Managers. Published by Health Research, Inc., Health Education Services Division, P. O. Box 7126, Albany, NY 12224.

(4) Standards of the American Water Works Association (AWWA) in effect on January 1, 2003. Published by the AWWA, 6666 W. Quincy Avenue, Denver, CO 80235.

(5) *Water Fluoridation: A Manual for Engineers and Technicians*, September 1986, Thomas G. Reeves, P.E. Published by the U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Dental Disease Prevention Activity, Atlanta, GA 30333.

(6) *Recommended Practice for Backflow Prevention and Cross-Connection Control*, AWWA Manual M14, Second Edition, 1990, American Water Works Association (AWWA). Published by the AWWA, 6666 W. Quincy Avenue, Denver, CO 80235.

(7) *Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse*, December 2000, National Water Research Institute (NWRI) and American Water Works Association Research Foundation. Published by the NWRI, P.O. Box 20865, Fountain Valley, CA 92728-0865.

(8) *Water Distribution Systems Handbook*, 1999, Larry W. Mays, Editor in Chief. Published by McGraw-Hill, Post Office Box 182604, Columbus, OH 43218-2605.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.861(7) FS. History–New 11-19-87, Formerly 17-22.630, Amended 1-18-89, 1-3-91, 1-1-93, Formerly 17-555.330, Amended 9-22-99, 8-28-03.

62-555.335 Guidance Documents for Public Water Systems.

The following publications are adopted as financial, managerial, and technical guidance to assist suppliers of water in achieving compliance with Chapters 62-550, 62-555, and 62-560, F.A.C. Each of these publications is available from the publisher or source listed for the publication. Specific portions of these publications may be referenced as enforceable requirements in Chapters 62-550, 62-555, and 62-560, F.A.C. But otherwise, these publications are to be used only as guidance, and the specific requirements contained in Chapters 62-550, 62-555, and 62-560, F.A.C., shall supersede the guidance in these publications.

(1) *Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources*, March 1991 Edition, U.S. Environmental Protection Agency (USEPA). Available from the following sources:

(a) USEPA, Office of Ground Water and Drinking Water (4601), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0003.

(b) Educational Resources Information Center, Clearinghouse for Sciences, Mathematics, and Environmental Education, 1929 Kenny Road, Columbus, OH 43210-1080.

(c) U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(2) *Lead and Copper Rule Guidance Manual, Volume I: Monitoring*, September 1991, U.S. Environmental Protection Agency. Available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(3) *Lead and Copper Rule Guidance Manual, Volume II: Corrosion Control Treatment*, September 1992, U.S. Environmental Protection Agency. Available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(4) *Lead and Copper Monitoring and Reporting Guidance for Public Water Systems*, February 2002, U.S. Environmental Protection Agency (USEPA). Available from the following sources:

(a) USEPA, Office of Ground Water and Drinking Water (4601), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0003.

(b) U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(5) *Alternative Disinfectants and Oxidants Guidance Manual*, April 1999, U.S. Environmental Protection Agency (USEPA). Available from the following sources:

(a) USEPA, Office of Ground Water and Drinking Water (4601), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0003.

(b) Educational Resources Information Center, Clearinghouse for Sciences, Mathematics, and Environmental Education, 1929 Kenny Road, Columbus, OH 43210-1080.

(c) U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(6) *Guidance Manual for Compliance with the Interim Enhanced Surface Water Treatment Rule: Turbidity Provisions*, April 1999, U.S. Environmental Protection Agency (USEPA). Available from the following sources:

(a) USEPA, Office of Ground Water and Drinking Water (4601), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0003.

(b) Educational Resources Information Center, Clearinghouse for Sciences, Mathematics, and Environmental Education, 1929 Kenny Road, Columbus, OH 43210-1080.

(c) U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(7) *Enhanced Coagulation and Enhanced Precipitative Softening Guidance Manual*, May 1999, U.S. Environmental Protection Agency (USEPA). Available from the following sources:

(a) USEPA, Office of Ground Water and Drinking Water (4601), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0003.

(b) Educational Resources Information Center, Clearinghouse for Sciences, Mathematics, and Environmental Education, 1929 Kenny Road, Columbus, OH 43210-1080.

(c) U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(8) *Disinfection Profiling and Benchmarking Guidance Manual*, August 1999, U.S. Environmental Protection Agency (USEPA). Available from the following sources:

(a) USEPA, Office of Ground Water and Drinking Water (4601), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0003.

(b) Educational Resources Information Center, Clearinghouse for Sciences, Mathematics, and Environmental Education, 1929 Kenny Road, Columbus, OH 43210-1080.

(c) U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(9) *Microbial and Disinfection Byproduct Rules Simultaneous Compliance Manual*, August 1999, U.S. Environmental Protection Agency (USEPA). Available from the following sources:

(a) USEPA, Office of Ground Water and Drinking Water (4601), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0003.

(b) Educational Resources Information Center, Clearinghouse for Sciences, Mathematics, and Environmental Education, 1929 Kenny Road, Columbus, OH 43210-1080.

(c) U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(10) NSF International (NSF) Standard 14-2003, Plastics Piping System Components and Related Materials; NSF Standard 42-2002, Drinking Water Treatment Units – Aesthetic Effects; NSF Standard 44-2002, Residential Cation Exchange Water Softeners; NSF Standard 53-2002, Drinking Water Treatment Units – Health Effects; NSF Standard 55-2002, Ultraviolet Microbiological Water Treatment Systems; NSF Standard 58-2002, Reverse Osmosis Drinking Water Treatment Systems; NSF Standard 60-2002, Drinking Water Treatment Chemicals – Health Effects; NSF Standard 61-2002, Drinking Water System Components – Health Effects; and NSF Standard 62-1999, Drinking Water Distillation Systems. Available from Techstreet, 1327 Jones Drive, Ann Arbor, MI 48105.

(11) *Water Chemicals Codex*, 1982, National Research Council. Published by the National Academies Press, 500 Fifth Street, NW, Lockbox 285, Washington, DC 20055.

(12) *Food Chemicals Codex*; Fourth Edition, 1996; First Supplement to the Fourth Edition, 1997; Second Supplement to the Fourth Edition, 2000; and Third Supplement to the Fourth Edition, 2001; Institute of Medicine. Published by the National Academies Press, 500 Fifth Street, NW, Lockbox 285, Washington, DC 20055.

(13) *Standard Methods for the Examination of Water and Wastewater*, 20th Edition, 1998, American Public Health Association (APHA), American Water Works Association, and Water Environment Federation. Published by the APHA, 800 I Street, NW, Washington, DC 20001.

(14) *Emergency Planning for Water Utilities*, AWWA Manual M19, Fourth Edition, 2001, American Water Works Association (AWWA). Published by the AWWA, 6666 W. Quincy Avenue, Denver, CO 80235.

(15) *Manual of Small Public Water Supply Systems*, May 1991, U.S. Environmental Protection Agency. Available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(16) *Design and Construction of Small Water Systems*, An AWWA Small Systems Resource Book, Second Edition, 1999, American Water Works Association (AWWA). Published by the AWWA, 6666 W. Quincy Avenue, Denver, CO 80235.

(17) *Design of Small Water Systems*; Engineer Manual 1110-2-503; February 27, 1999; U.S. Army Corps of Engineers. Available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(18) "Guidelines for the Issuance of Precautionary Boil Water Notices;" August 26, 1999; Florida Department of Health (FDOH). Available from the FDOH, Bureau of Water Programs, 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1709.

(19) *Sources of Technical and Financial Assistance for Small Drinking Water Systems*, July 2002, U.S. Environmental Protection Agency (USEPA). Available from the USEPA, Office of Ground Water and Drinking Water (4601), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0003.

(20) *System Partnership Solutions to Improve Public Health Protection*, September 2002, U.S. Environmental Protection Agency (USEPA). Available from the USEPA, Office of Ground Water and Drinking Water (4601), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0003.

(21) *New Water System Capacity Development Planning Manual*, April 2003, Florida Department of Environmental Protection (FDEP). Available from the FDEP, Drinking Water Section, 2600 Blair Stone Road, M.S. 3520, Tallahassee, Florida 32399-2400.

(22) *Uniform System of Accounts for Class A Water Utilities,* 1996; *Uniform System of Accounts for Class B Water Utilities,* 1996; *Uniform System of Accounts for Class C Water Utilities*, 1996; National Association of Regulatory and Utility Commissioners

(NARUC). Published by the NARUC, 1101 Vermont Avenue, NW, Suite 200, Washington, DC 20005.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.861(7), 403.8615 FS. History–New 1-3-91, Amended 1-1-93, Formerly 17-555.335, Amended 9-22-99, 8-28-03.

62-555.340 Disinfection and Bacteriological Evaluation of Public Water System Components.

This section addresses disinfection and bacteriological evaluation of the following public water system (PWS) components: treatment or storage facilities and water mains. These PWS components shall be disinfected to inactivate any microbiological contaminant that might have been introduced into the facilities or mains during construction, alteration, repair, or maintenance. For the purpose of this section, the phrase "water mains" shall mean mains, including treatment plant process piping, conveying either raw, partially treated, or finished drinking water; fire hydrant leads; and service lines that are under the control of a PWS and that have an inside diameter of three inches or greater. Disinfection of public water system wells and bacteriological surveys and evaluations of such wells are addressed in subsection 62-555.315(6), F.A.C.

(1) Before new or altered treatment or storage facilities, new or altered water mains, and treatment or storage facilities and water mains taken out of operation for repair or maintenance that might lead to contamination of water are placed into, or returned to, operation, they shall be properly disinfected in accordance with the applicable American Water Works Association (AWWA) standard (i.e., AWWA Standard C651, C652, or C653) as incorporated into Rule 62-555.330, F.A.C., except that bacteriological evaluations to verify proper disinfection shall be conducted in accordance with subsection (2) below. This subsection does not apply to, and disinfection and bacteriological evaluations are not required for, the following treatment or storage facilities and water mains:

(a) Treatment or storage facilities and water mains that normally are treating, storing, or conveying surface water, or ground water under the direct influence of surface water, and that are located upstream of all filtration and disinfection treatment facilities;

(b) Disinfectant storage, feed, or application facilities;

(c) Treatment facilities handling residuals that are not recycled to the drinking water treatment train; and

(d) Water mains that are repaired with clamping devices while remaining full of pressurized water.

(2) Bacteriological evaluations to verify proper disinfection of treatment or storage facilities and water mains shall be conducted as set forth in paragraphs (a) through (c) below. The total residual chlorine measurements required under paragraph (a) may be performed by any authorized representative of the supplier of water or person constructing or altering the treatment or storage facilities or water mains but shall be performed following the appropriate procedures in the Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP-001/01, as incorporated into Rule 62-160.800, F.A.C. The total coliform analyses required under paragraph (a) shall be performed by a laboratory of the Department of Health (DOH) or a laboratory certified by the DOH to perform bacteriological analyses of drinking water and shall be performed using an appropriate method referenced in subsection 62-550.550(1), F.A.C.

(a) After reducing the total chlorine residual in the facilities or mains to no more than four milligrams per liter, a total of at least two samples – each taken on a separate day and taken at least six hours apart from the other sample(s) – shall be collected at each of the locations indicated in the applicable AWWA standard referenced in subsection (1) above, and the samples shall be analyzed for total residual chlorine and for the presence of total coliform.

(b) If any sample contains more than four milligrams per liter of total chlorine, the sample shall be considered invalid. If any sample shows the presence of total coliform, the facilities or mains shall be redisinfected as necessary in accordance with subsection (1) above and resampled in accordance with paragraph (a) above until two consecutive samples at each sampling location show the absence of total coliform.

(c) Bacteriological test results shall be considered unacceptable if the tests were completed more than 60 days before the Department received the results.

(3) Except as allowed under subsections (4) and (5) below and except as allowed under special construction permit conditions established in accordance with paragraph 62-555.533(2)(f), F.A.C., no disinfected treatment or storage facilities or water mains shall be placed into, or returned to, operation until a bacteriological evaluation has been satisfactorily completed in accordance with subsection (2) above, results of the evaluation have been submitted to the appropriate Department of Environmental Protection (DEP) District Office or Approved County Health Department (ACHD), and said DEP District Office or ACHD has approved the facilities or mains for operation.

(4) When constructing or altering treatment or storage facilities, or water mains, for which a public water system construction

permit is not required per subsection 62-555.520(1), F.A.C., and when taking treatment or storage facilities or water mains out of operation for repair or maintenance that might lead to contamination of water, the facilities or mains may be placed into, or returned to, operation without the Department's approval after disinfection and satisfactory completion of a bacteriological evaluation in accordance with subsection (2) above. The results of the bacteriological evaluation shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department along with the next monthly operation report(s) required under paragraph 62-555.350(12)(b), F.A.C., or if no monthly operation report is required under paragraph 62-555.350(12)(b), F.A.C., within ten days after the end of the month during which the bacteriological evaluation was completed.

(5) When taking water mains out of operation for repair or rehabilitation that might lead to contamination of water, the mains may be returned to operation without the Department's approval after disinfection and before completion of a bacteriological evaluation in order to minimize the time customers are without water. An advisory or a precautionary "boil water" notice shall be issued if deemed necessary by the supplier of water or if recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. A bacteriological evaluation still must be satisfactorily completed in accordance with subsection (2) above after the mains are returned to operation. If any bacteriological sample shows the presence of total coliform, the supplier of water shall telephone, and speak directly to a person at, the appropriate Department of Environmental Protection (DEP) District Office or Approved County Health Department (ACHD) as soon as possible, but never later than noon of the next business day. Otherwise, the results of the bacteriological evaluation shall be submitted to the appropriate DEP District Office or ACHD along with the next monthly operation report(s) required under paragraph 62-555.350(12)(b), F.A.C., or if no monthly operation report is required under paragraph 62-555.350(12)(b), F.A.C., within ten days after the end of the month during which the bacteriological evaluation was completed.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.852(12), (13), 403.853(1), (3) FS. History–New 11-19-87, Formerly 17-22.640, Amended 1-18-89, Formerly 17-555.340, Amended 8-28-03.

62-555.345 Certification of Construction Completion and Clearance for Public Water System Components.

Except as allowed under subsection 62-555.340(5), F.A.C., or by special permit condition established in accordance with paragraph 62-555.533(2)(f), F.A.C., no public water system (PWS) components constructed or altered under a permit granted by the Department shall be placed into permanent operation without prior Department approval, or clearance, as described below.

(1) Upon completing, or substantially completing, the construction of new or altered PWS components, and before placing the components into operation for any purpose other than disinfection, testing for leaks, or testing equipment operation, the permittee shall submit to the appropriate Department of Environmental Protection (DEP) District Office or Approved County Health Department one copy of a completed certification of construction completion using Form 62-555.900(9), Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components into Operation, hereby adopted and incorporated by reference, effective August 28, 2003. Copies of this form are available from the Department of Environmental Protection, Drinking Water Section, M.S. 3520, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. This certification shall be accompanied by one copy of the following information:

(a) The portion of record drawings showing deviations from the DEP construction permit, including the approved preliminary design report or drawings and specifications, if there are any deviations from said permit. (Note that it is necessary to submit a copy of only the portion of record drawings showing deviations and not a complete set of record drawings.)

(b) Bacteriological test results, including a sketch or description of all bacteriological sampling locations, demonstrating compliance with subsection 62-555.315(6), F.A.C., or Rule 62-555.340, F.A.C., if any of the new or altered PWS components must be disinfected and bacteriologically surveyed or evaluated per said subsection or said rule.

(c) Analytical test results demonstrating compliance with Part III of Chapter 62-550, F.A.C., or subsection 62-524.650(2), F.A.C., if any of the new or altered PWS components are necessary to achieve, or affect, compliance with said part or said subsection.

(d) A completed Form 62-555.900(20), New Water System Capacity Development Financial and Managerial Operations Plan, as incorporated into Rule 62-555.357, F.A.C., if the new or altered PWS components were constructed under a permit issued by the Department before the effective date of Rule 62-555.525, F.A.C., (9-22-99) and create a "new system" as described under subsection 62-555.525(1), F.A.C.

(e) Any other information required by conditions in the DEP construction permit.

(2) Within 14 days after receiving a certification of construction completion for PWS components constructed or altered under a general permit, the Department shall review the certification. If the Department finds anything that will prevent the new or altered components from functioning in compliance with Chapters 62-550 and 62-555, F.A.C., or if the Department finds that the new or altered components will cause, or contribute to, a PWS's noncompliance with Chapter 62-550 or 62-555, F.A.C., the Department shall issue to the permittee, within the aforementioned 14-day review period, a written request for corrective action and for resubmittal of the certification after the corrective action is completed.

(3) Within 30 days after receiving a certification of construction completion for PWS components constructed or altered under a specific permit, the Department shall review the certification and, if the new or altered components create a "new system" as described under subsection 62-555.525(1), F.A.C., shall inspect the "new system." If the Department finds anything that will prevent the new or altered components from functioning in compliance with Chapters 62-550 and 62-555, F.A.C., if the Department finds anything that will prevent a "new system" from functioning in compliance with Chapters 62-550, 62-555, 62-560, and 62-699, F.A.C., or if the Department finds that the new or altered components will cause, or contribute to, an existing PWS's noncompliance with Chapter 62-550 or 62-555, F.A.C., the Department shall issue to the permittee, within the aforementioned 30-day review/inspection period, a written request for corrective action and for resubmittal of the certification after the corrective action is completed.

(4) Within 14 days after receiving a satisfactory certification of construction completion for PWS components constructed or altered under a general permit and within 30 days after receiving a satisfactory certification of construction completion for PWS components constructed or altered under a specific permit, the Department shall issue written approval, or clearance, to place the new or altered components into permanent operation. The Department shall issue the clearance to the permittee and shall provide a copy of the clearance to the PWS supplying water to the new or altered components if said PWS is not the permittee.

(5) Suppliers of water shall ensure that permittees have obtained written clearance from the Department before suppliers of water turn on water service to permittees.

Rulemaking Authority 403.853(3), 403.861(9) FS. Law Implemented 403.0877, 403.853(1), (3), 403.861(10), 403.8615 FS. History–New 11-19-87, Formerly 17-22.645, Amended 1-18-89, 5-7-90, 1-3-91, 1-1-93, Formerly 17-555.345, Amended 9-22-99, 8-28-03.

62-555.348 Planning for Expansion of Public Water System Source, Treatment, or Storage Facilities.

This section applies to all community water systems serving, or designed to serve, 350 or more persons or 150 or more service connections.

(1) Suppliers of water shall provide for the timely planning, design, permitting, and construction of necessary public water system source, treatment, or storage facilities.

(2) Suppliers of water shall routinely compare the total net quantity of finished drinking water produced each day by their treatment plant(s) with the total permitted maximum-day operating capacity of their plant(s). The permitted maximum-day operating capacity of each plant shall be as specified in the latest Department of Environmental Protection (DEP) construction permit concerning source water or treatment facilities for the plant. In cases where no permitted maximum-day operating capacity has been specified in the latest DEP construction permit concerning source water or treatment facilities for a plant, the Department shall establish the permitted maximum-day operating capacity of the plant based upon information that is included in or with pertinent permit applications or that is provided by the supplier of water and based upon design requirements in Part III of this chapter, including design requirements in the engineering references listed in Rule 62-555.330, F.A.C.

(3) When the total maximum-day quantity of finished water produced by all treatment plants connected to a water system, including water produced to meet any fire-flow demand but excluding water produced to meet any demand that the supplier of water documents to be highly unusual and nonrecurring, exceeds 75 percent of the total permitted maximum-day operating capacity of the plants, the supplier of water shall submit source/treatment/storage capacity analysis reports to the Department according to the schedule described in paragraphs (a) and (b) below; however, in no case shall it be necessary to submit more than one report annually. The reports shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department.

(a) The initial report shall be submitted within six months after the month in which the total maximum-day quantity of finished water produced by the treatment plant(s) first exceeds 75 percent of the total permitted maximum-day operating capacity of the plant(s) or by August 28, 2004, whichever occurs later.

(b) Updated reports shall be submitted as follows:

1. If the initial report or the latest updated report indicates that maximum-day water demand (including fire-flow demand if fire protection is being provided) at build-out will not exceed the total permitted maximum-day operating capacity of the treatment plant(s) and that finished-water storage need (including fire storage if fire protection is being provided) at build-out will not exceed the existing total useful finished-water storage capacity, no additional report is required.

2. If the initial report or the latest updated report indicates that maximum-day water demand (including fire-flow demand if fire protection is being provided) will not exceed the total permitted maximum-day operating capacity of the treatment plant(s) for at least ten years and that finished-water storage need (including fire storage if fire protection is being provided) will not exceed the existing total useful finished-water storage capacity for at least ten years, the next updated report shall be submitted within five years after submittal of the previous report.

3. If the initial report or the latest updated report indicates that maximum-day water demand (including fire-flow demand if fire protection is being provided) will exceed the total permitted maximum-day operating capacity of the treatment plant(s) in less than ten years but greater than or equal to five years or that finished-water storage need (including fire storage if fire protection is being provided) will exceed the existing total useful finished-water storage capacity in less than ten years but greater than or equal to five years, the next updated report shall be submitted within two years after submittal of the previous report.

4. If the initial report or the latest updated report indicates that maximum-day water demand (including fire-flow demand if fire protection is being provided) will exceed the total permitted maximum-day operating capacity of the treatment plant(s) in less than five years or that finished-water storage need (including fire storage if fire protection is being provided) will exceed the existing total useful finished-water storage capacity in less than five years, the next updated report shall be submitted within one year after submittal of the previous report.

(4) Each initial or updated source/treatment/storage capacity analysis report shall evaluate the capacity of all source, treatment, or storage facilities connected to a water system and shall contain the following information:

(a) The capacity of each water treatment plant's source water facilities and treatment facilities; the permitted maximum-day operating capacity and, if applicable, permitted peak operating capacity of each plant; and the useful capacity of each finished-water storage facility;

(b) The maximum-day and annual average daily quantities of finished water produced by each plant during each of the past ten years or during each of the years the plant has been in operation, whichever is less;

(c) Projected total water demands – total annual average daily demand and total maximum-day demand (including fire-flow demand if fire protection is being provided) – for at least the next ten years and projected total finished-water storage need (including fire storage if fire protection is being provided) for at least the next ten years;

(d) An estimate of the time required for maximum-day water demand (including fire-flow demand if fire protection is being provided) to exceed the total permitted maximum-day operating capacity of the plant(s) and an estimate of the time required for finished-water storage need (including fire storage if fire protection is being provided) to exceed the existing total useful finished-water storage capacity;

(e) Recommendations for new or expanded source, treatment, or storage facilities; and

(f) A recommended schedule showing dates for design, permitting, and construction of recommended new or expanded source, treatment, or storage facilities.

(5) Each initial or updated source/treatment/storage capacity analysis report shall be prepared under the responsible charge of one or more professional engineers licensed in Florida and shall be signed, sealed, and dated by the professional engineer(s) in responsible charge.

(6) If an initial or updated source/treatment/storage capacity analysis report indicates that maximum-day water demand (including fire-flow demand if fire protection is being provided) will exceed the total permitted maximum-day operating capacity of the water treatment plant(s) in less than five years or that finished-water storage need (including fire storage if fire protection is being provided) will exceed the existing total useful finished-water storage capacity in less than five years, documentation of timely design, permitting, and construction of recommended new or expanded source, treatment, or storage facilities shall be submitted with the report. The documentation shall consist of a written statement that is signed by an authorized representative of the supplier of water and that certifies the supplier is meeting, and intends to meet, the report's recommended schedule for design, permitting, and construction of recommended new or expanded source, treatment, or storage facilities.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.861(17) FS. History–New 8-28-03.

62-555.350 Operation and Maintenance of Public Water Systems.

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

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

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

(4) No supplier of water shall operate any drinking water treatment plant at a capacity greater than the plant's permitted operating capacity except with the Department's prior approval, which shall be given when such operation will not cause a violation of a maximum contaminant level, a treatment technique requirement, or other operating requirements and is for no more than three months, or under circumstances that the supplier of water documents as highly unusual and nonrecurring. The permitted operating capacity of each plant shall be as specified in the latest Department of Environmental Protection (DEP) construction permit concerning source water or treatment facilities for the plant. In cases where no permitted operating capacity has been specified in the latest DEP construction permit concerning source water or treatment facilities for a plant, the Department shall establish the permitted maximum-day operating capacity of the plant and, if the plant is designed to meet peak water demand or to supplement finished-water storage facilities in meeting peak water demand, the permitted peak operating capacity of the plant based upon information that is included in or with pertinent permit applications or that is provided by the supplier of water and based upon design requirements in Part III of this chapter, including design requirements in the engineering references listed in Rule 62-555.330, F.A.C. Each day that a supplier of water is required under Chapter 62-699, F.A.C., to have a licensed operator staff or visit a plant, the supplier of water shall measure and record in the logs and reports required under subsection (12) below the net quantity of finished drinking water, excluding any filter backwash water, produced by the plant.

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

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

(b) For each day a supplier of water serving less than 3,300 persons serves water to the public from a drinking water treatment plant that includes chemical disinfection for virus inactivation, the supplier of water shall monitor the residual disinfectant concentration (C) before or at the first customer by taking at least one grab sample during peak flow and shall record in the logs and reports required under subsection (12) below the lowest C measured before or at the first customer during peak flow, the corresponding disinfectant contact time (T) at the C monitoring point during peak flow, and the resulting CT provided before or at the first customer during peak flow. In addition, at least once for each day the supplier of water serves water to the public from the plant, the supplier of water shall measure and record the temperature of the water at the point where C is monitored; shall measure and record the pH of the water at the point where C is monitored if free chlorine is being used for virus inactivation; and with this temperature and pH information, shall determine and record the minimum CT required to comply with paragraph 62-555.320(12)(b), F.A.C. If any measurement of the "CT provided" falls below the minimum CT required, the supplier of water shall increase the disinfectant dose and take follow-up grab samples at least every four hours until the "CT provided" is at least equal to the minimum CT required and shall notify the Department in accordance with subsection (10) below.

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

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

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

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

residual disinfectant concentration in the logs and reports required under subsection (12) below.

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

(8) Suppliers of water shall employ licensed operation personnel in accordance with Chapters 62-602 and 62-699, F.A.C., for all public water systems except transient non-community water systems using only ground water and serving only businesses other than public food service establishments as defined in, and regulated under, Chapter 381, 500, or 509, F.S.

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

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

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

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

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

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

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

(c) Suppliers of water shall notify the appropriate DEP District Office or ACHD and affected water customers by no later than the previous business day before initiating any planned permanent or temporary conversion from free chlorine to chloramines or vice versa for disinfection. Notices to the appropriate DEP District Office or ACHD shall be delivered by telephoning, and speaking directly to a person at, the DEP District Office or ACHD, and notices to affected water customers shall be delivered in writing or via telephone, newspaper, radio, or television. A single notice may be provided to cover both a planned temporary conversion from chloramines to free chlorine and the planned subsequent conversion back to chloramines. Notification is not required before unplanned temporary conversions from chloramines to free chlorine to protect public health during emergency operating conditions caused by circumstances such as source water contamination, water main breaks, or backflow incidents.

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

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

components other than water service lines.

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

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

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

(b) For all public water systems except transient non-community water systems using only ground water and serving only businesses other than public food service establishments, suppliers of water shall submit monthly operation reports to the appropriate Department of Environmental Protection District Office or Approved County Health Department within ten days after each month of operation per paragraph 62-550.730(1)(d), F.A.C., and shall do so using the following forms as applicable: Form 62-555.900(2), Monthly Operation Report for Subpart H Systems as incorporated into paragraph 62-550.817(11)(a), F.A.C.; Form 62-555.900(3), Monthly Operation Report for PWSs Treating Raw Ground Water or Purchased Finished Water, hereby adopted and incorporated by reference, effective August 28, 2003; Form 62-555.900(4), Monthly Operation Report for Consecutive Systems that Do Not Treat Water, hereby adopted and incorporated by reference, effective August 28, 2003; Form 62-555.900(6), Monthly Operation Report for Consecutive Systems that Receive Purchased Finished Water from a Subpart H System as incorporated into paragraph 62-550.817(11)(b), F.A.C.; Form 62-555.900(11), Monthly Operation Report for Summation of Finished-Water Production by CWSs that Have Multiple Treatment Plants, hereby adopted and incorporated by reference, effective August 28, 2003. Copies of these forms are available from the Department of Environmental Protection Drinking Water Section, M.S. 3520, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Suppliers of water shall keep copies of monthly operation reports, together with any additional operation records required by the monthly operation reports, for at least ten years in accordance with subsection 62-550.720(5), F.A.C.

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

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

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

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

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

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

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following

disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

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

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

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

62-555.357 New Water System Capacity Development Financial and Managerial Operations Plans.

A New Water System Capacity Development Financial and Managerial Operations Plan consists of a completed Form 62-555.900(20), hereby adopted and incorporated by reference, effective August 28, 2003, including all supporting attachments. Copies of this form are available from the Department of Environmental Protection, Drinking Water Section, M.S. 3520, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(1) For each water system that is considered a "new system" per subsection 62-555.525(1), F.A.C., but for which a construction permit is not required, the supplier of water shall submit a New Water System Capacity Development Financial and Managerial Operations Plan to the Department within 90 days after commencing operations as a community or non-transient non-community water system. The plan shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department.

(2) For each water system that is considered a "new system" per subsection 62-555.525(1), F.A.C., the supplier of water shall submit an updated New Water System Capacity Development Financial and Managerial Operations Plan to the Department within 90 days after the third anniversary of the system commencing operations as a community or non-transient non-community water system. The updated plan shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department.

(3) For each water system that is considered a "new system" per subsection 62-555.525(1), F.A.C., and that changes ownership on or after August 28, 2003, the supplier of water acquiring ownership of the system shall submit an updated New Water System Capacity Development Financial and Managerial Operations Plan to the Department within 90 days after acquiring ownership of the system. The updated plan shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department.

(4) Within 30 days after the Department receives a New Water System Capacity Development Financial and Managerial Operations Plan required under subsection (1), (2), or (3) above, the Department shall review the plan. If the Department finds anything that will prevent the "new system" from functioning in compliance with Chapters 62- 550, 62-555, 62-560, and 62-699, F.A.C., the Department shall issue to the supplier of water, within the aforementioned 30-day review period, a written request for changes to the plan and for resubmittal of the plan after the changes are made. Within 30 days after receiving a satisfactory plan (i.e., a plan that is complete and that indicates the "new system" has the capacity to function in compliance with Chapters 62-550, 62-555, 62-560, and 62-699, F.A.C.), the Department shall issue to the supplier of water written approval of the plan.

Rulemaking Authority 403.861(9), 403.8615(1) FS. Law Implemented 403.8615 FS. History–New 9-22-99, Amended 8-28-03.

62-555.360 Cross-Connection Control for Public Water Systems.

(1) Cross-connection, as defined in Rule 62-550.200, F.A.C., is prohibited. However, a person who owns or manages a public water system may interconnect to another public water system if that system is operated and maintained in accordance with this chapter.

(2) Community water systems, and all public water systems that have service areas also served by reclaimed water systems regulated under Part III of Chapter 62-610, F.A.C., shall establish and implement a routine cross-connection control program to detect and control cross-connections and prevent backflow of contaminants into the water system. This program shall include a written plan that is developed using recommended practices of the American Water Works Association set forth in *Recommended Practice for Backflow Prevention and Cross-Connection Control,* AWWA Manual M14, as incorporated into Rule 62-555.330, F.A.C.

(3) Upon discovery of a prohibited cross-connection, public water systems shall either eliminate the cross-connection by installation of an appropriate backflow prevention device acceptable to the Department or shall discontinue service until the contaminant source is eliminated.

(4) Only the following are considered to be backflow prevention devices. They shall be installed in agreement with and under the supervision of the supplier of water or his designated representative (plumbing inspector, etc.) at the consumer's meter, at the property line of the consumer when a meter is not used, or at a location designated by the supplier of water or the Department. The devices are:

(a) Air gap separation – A physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel. An "approved airgap separation" shall be at least double the diameter of the supply pipe measured vertically above the top of the rim of the vessel. In no case shall it be less than 1 inch.

(b) Reduced pressure backflow preventer – A device containing within its structure a minimum of two independently acting approved check valves, together with an automatically operating pressure differential relief valve located between the two check valves. The first check valve reduces the supply pressure a predetermined amount so that during normal flow and at cessation of normal flow the pressure between the checks shall be less than the supply pressure. In case of leakage of either check valve, the differential relief valve, by discharging to the atmosphere, shall operate to maintain the pressure between the checks less than the supply pressure. The unit shall include tightly closing shutoff valves located at each end of the device, and each device shall be fitted with properly located test cocks.

(c) Atmospheric vacuum breaker – A backflow prevention device which is operated by atmospheric pressure in combination with the force of gravity. The unit is designed to work on a vertical plane only. The one moving part consists of a poppet valve which must be carefully sized to slide in a guided chamber and effectively shut off the reverse flow of water when a negative pressure exists.

(d) Pressure vacuum breaker – A pressure vacuum breaker is similar to an atmospheric vacuum breaker except that the checking unit poppet valve is activated by a spring. This type of vacuum breaker does not require a negative pressure to react and can be used on the pressure side of a valve.

(e) Double check valve assembly – An assembly composed of two single, independently acting, check valves, including tightly closing shutoff valves located at each end of the assembly and suitable connections for testing the water tightness of each check valve. A check valve is a valve that is drip-tight in the normal direction of flow when the inlet pressure is one psi and the outlet pressure is zero. The check valve shall permit no leakage in a direction reverse to the normal flow. The closure element (e.g., clapper) shall be internally weighted or otherwise internally loaded to promote rapid and positive closure.

(f) Residential Dual Check – A compact unit manufactured with two independent spring actuated check valves. The residential dual check is acceptable only as added back-flow prevention in areas served by reuse systems defined in Chapter 62-610, Part III, F.A.C., when the cross connection control program identifies activities specific to paragraphs (5)(a) and (5)(b) of this section.

(5) Cross connection control programs specific to reuse systems defined in Chapter 62-610, Part III, F.A.C., shall consider the following:

(a) Enhanced public education efforts towards prevention of cross connections.

(b) Enhanced inspection programs for portions of the distribution system in areas of reuse for detection and elimination of cross connections.

(c) Dual check valves shall be considered acceptable for reducing risks from back-flow only at residential properties served by reclaimed water unless:

1. Local codes, ordinances, or regulations require greater levels of back-flow prevention.
2. Other hazards exist on the property that require a greater level of back-flow prevention.

Rulemaking Authority 403.086(8), 403.861(9) FS. Law Implemented 403.086(8), 403.855(3) FS. History–New 11-19-87, Formerly 17-22.660, Amended 1-18-89, 1-3-91, 1-1-93, Formerly 17-555.360, Amended 8-28-03.

62-555.365 Changes in Ownership of Public Water Systems.

At least 30 days before the proposed sale, or legal transfer of ownership, of a public water system, the current owner of the system and the proposed owner of the system shall jointly notify the Department in writing of the proposed change in ownership of the system. The notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following information: the public water system name and identification number; the name of the current owner of the system; the name of the proposed owner of the system and the name, title, mailing address, telephone number, fax number, and e-mail address of a designated responsible official of the proposed owner; and the proposed date for the change in ownership of the system.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.861(14) FS. History–New 8-28-03.

62-555.401 General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium Public Water Systems.

(1) A general permit is hereby granted to any small or medium system, as defined in Rule 62-550.200, F.A.C., for the construction of lead or copper corrosion control treatment facilities, provided that the facilities are designed in accordance with Part III of this chapter and provided that:

(a) Per subsections 62-4.530(1) and 62-555.520(2), F.A.C., the system notifies the Department at least 30 days before beginning construction using Form 62-555.900(18), Notice of Intent to Use the General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium PWSs, as incorporated into subsection 62-555.520(2), F.A.C. The completed notice form shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall be accompanied by the permit processing fee described in subsection 62-555.520(6), F.A.C., and listed in paragraph 62-4.050(4)(p), F.A.C.

(b) The selected lead or copper corrosion control treatment is consistent with the guidance and recommendations in the *Lead and Copper Guidance Manual, Volume II: Corrosion Control Treatment* as adopted in Rule 62-555.335, F.A.C.

(2) A general permit is hereby granted to any small or medium system, as defined in Rule 62-550.200, F.A.C., for the construction of iron or manganese sequestration treatment facilities, provided that the facilities are designed in accordance with Part III of this chapter and provided that, per subsections 62-4.530(1) and 62-555.520(2), F.A.C., the system notifies the Department at least 30 days before beginning construction using Form 62-555.900(18), Notice of Intent to Use the General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium PWSs, as incorporated into subsection 62-555.520(2), F.A.C. The completed notice form shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall be accompanied by the permit processing fee described in subsection 62-555.520(6), F.A.C., and listed in paragraph 62-4.050(4)(p), F.A.C.

(3) This general permit is subject to the general conditions in Rule 62-4.540, F.A.C., and the following specific conditions:

(a) If the treatment facilities being constructed under this general permit were designed under the responsible charge of a professional engineer, the permittee shall retain a Florida-licensed professional engineer in accordance with subsection 62-555.530(3), F.A.C., to take responsible charge of inspecting construction of the facilities for the purpose of determining in general if the construction proceeds in compliance with this general permit, including the approved preliminary design report for the facilities.

(b) In accordance with subsection 62-555.530(4), F.A.C., the permittee shall have complete record drawings produced for the treatment facilities being constructed under this general permit.

(c) To fulfill the requirements under subsection 62-555.350(13), F.A.C., the permittee shall provide an operation and maintenance manual for the treatment facilities constructed under this general permit.

(d) Per Rule 62-555.345, F.A.C., the permittee shall submit a certification of construction completion to the Department and

obtain approval, or clearance, from the Department before placing any treatment facilities constructed under this general permit into operation for any purpose other than disinfection, testing for leaks, or testing equipment operation. This specific condition does not prohibit the permittee from cutting into existing water mains and returning the water mains to operation in accordance with subsection 62-555.340(5), F.A.C., without the Department's approval.

Rulemaking Authority 403.814(1), 403.861(9) FS. Law Implemented 403.0877, 403.814(1), (4), 403.861(7), (10) FS. History–New 12-10-96, Amended 8-28-03.

62-555.405 General Permit for Construction of Water Main Extensions for Public Water Systems.

(1) A general permit is hereby granted to any person for the construction of an extension to public water system mains conveying finished drinking water, provided that the extension is designed in accordance with Part III of this chapter and provided that:

(a) Per subsections 62-4.530(1) and 62-555.520(2), F.A.C., the person notifies the Department at least 30 days before beginning construction using Form 62-555.900(7), Notice of Intent to Use the General Permit for Construction of Water Main Extensions for PWSs, as incorporated into subsection 62-555.520(2), F.A.C. The completed notice form shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall be accompanied by the permit processing fee described in subsection 62-555.520(6), F.A.C., and listed in paragraph 62-4.050(4)(p), F.A.C.

(b) The public water system to which the water main extension will be connected has the capacity necessary to meet the design water demands of all customers to be served by the water main extension, and said public water system is in compliance with applicable planning requirements under Rule 62-555.348, F.A.C.; applicable cross-connection control requirements under Rule 62-555.360, F.A.C.; and all other applicable rules in Chapters 62-550, 62-555, and 62-699, F.A.C.

(c) Construction of the water main extension will not include construction of any drinking water treatment, pumping, or storage facilities or any conflict manholes.

(d) The water main extension will not be installed in areas contaminated by low-molecular-weight petroleum products or organic solvents.

(e) The water main extension will not interconnect previously separate public water systems or create a "new system" as described under subsection 62-555.525(1), F.A.C.

(f) No portion of the water main extension will remain dry following completion of construction.

(2) This general permit is subject to the general conditions in Rule 62-4.540, F.A.C., and the following specific conditions:

(a) If the water main extension being constructed under this general permit was designed under the responsible charge of a professional engineer, the permittee shall retain a Florida-licensed professional engineer in accordance with subsection 62-555.530(3), F.A.C., to take responsible charge of inspecting construction of the water main extension for the purpose of determining in general if the construction proceeds in compliance with this general permit, including the approved preliminary design report for the water main extension.

(b) In accordance with subsection 62-555.530(4), F.A.C., the permittee shall have complete record drawings produced for the water main extension being constructed under this general permit.

(c) Per Rule 62-555.345, F.A.C., the permittee shall submit a certification of construction completion to the Department and obtain approval, or clearance, from the Department before placing any water main extension constructed under this general permit into operation for any purpose other than disinfection or testing for leaks. This specific condition does not prohibit the permittee from cutting into existing water mains and returning the water mains to operation in accordance with subsection 62-555.340(5), F.A.C., without the Department's approval.

Rulemaking Authority 403.814(1), 403.861(9) FS. Law Implemented 403.0877, 403.814(1), (4), 403.861(7), (9), (10) FS. History–New 7-8-82, Formerly 17-4.63, 17-4.630, 17-22.801, Amended 1-18-89, 1-1-93, Formerly 17-555.540, Amended 12-19-94, 12-10-96, 8-28-03.

62-555.500 General.

This part addresses construction permitting requirements for all public water system components other than wells (but including well pumping equipment and appurtenances) Permitting requirements for construction or repair of public water system wells are

addressed in Chapters 62-524 and 62-532, F.A.C.

Rulemaking Authority 403.861(2), (6), (9) FS. Law Implemented 403.861(2), (6), (7), (10) FS. History–New 11-19-87, Formerly 17-22.710, Amended 1-18-89, Formerly 17-555.500, Amended 8-28-03.

62-555.520 Applying for Public Water System Construction Permits.

(1) Except as noted in paragraphs (a) through (d) below, a construction permit is required for construction or alteration of any public water system component.

(a) No construction permit is required for use of point-of-entry (POE) or point-of-use (POU) treatment devices in lieu of centralized treatment to comply with a maximum contaminant level as allowed under subsection 62-550.340(2), F.A.C. However, suppliers of water shall submit a written request to, and obtain written approval from, the Department in accordance with subsection 62-550.340(2), F.A.C., before installing such POE or POU treatment devices. Additionally, suppliers of water are responsible for ensuring that such POE or POU treatment devices comply with the requirements in subsection 62-550.340(2), F.A.C.

(b) No construction permit is required for the types work or alterations listed in subparagraphs 1. through 5. below. However, suppliers of water shall obtain written approval from the Department before beginning such work or alterations. Each request for approval shall be submitted in writing to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C. Additionally, each request for approval to discontinue use of existing drinking water treatment facilities, each request for approval to change drinking water treatment chemicals, and each request for approval to add tracer chemicals shall include assurance of continuing compliance with applicable primary or secondary drinking water standards; and each request for approval to conduct demonstration testing of existing drinking water treatment facilities that will discharge directly to downstream treatment, storage, or distribution facilities and each request for approval to construct or install a temporary pilot plant that will discharge to a public water system shall include the following: technical and reliability information, third-party technology verifications or historical study data, and jar test results to provide assurance of continuing compliance with applicable primary or secondary drinking water standards during times of demonstration testing or pilot plant operation; a plan to monitor at least daily for applicable process control parameters and acute contaminants and at least weekly for applicable chronic contaminants during times of demonstration testing or pilot plant operation; a plan for start-up, normal operation, and emergency shutdown of the demonstration testing or pilot plant and for emergency flushing of storage and distribution facilities; and a plan to properly train operators and to staff the affected drinking water treatment plant with a licensed operator during all times of demonstration testing or pilot plant operation. Within 30 days after the Department receives a request for approval, the Department shall issue written approval of the work or alterations described in the request, shall issue written comments asking for resubmittal of the request with all information and assurances required under this paragraph, or shall issue a written determination that a construction permit is required because the work/alterations described in the request is/are not of a type listed under this paragraph. The Department shall approve work or alterations described in a request for approval if the work/alterations is/are of a type listed under this paragraph and if the request includes all information and assurances required under this paragraph.

1. Discontinuing use of any existing drinking water treatment, pumping, or storage facilities.

2. Changing any type of drinking water treatment chemicals other than temporarily converting from chloramines to free chlorine (to protect public health during emergency operating conditions or to eliminate excess ammonia, oxidize nitrite and nitrifying bacteria, and control biofilm in a water distribution system), provided the change in chemicals will be made without construction or alteration of any chemical application facilities or other drinking water treatment facilities.

3. Temporarily adding any chemical to raw, partially treated, or finished drinking water for the purpose of conducting a tracer study.

4. Demonstration testing of any existing drinking water treatment facilities if the water from the facilities being tested will be discharged directly to downstream treatment, storage, or distribution facilities (instead of being discharged to waste or to upstream treatment facilities for full treatment at no greater than the maximum permitted rate).

5. Construction or installation of any pilot plant that will discharge water to a public water system (instead of discharging water to waste), provided the plant will discharge to the water system for no more than three months.

(c) No construction permit is required for the types of work or alterations listed in subparagraphs 1 through 5 below. However, suppliers of water shall submit written notification to the Department before beginning such work or alterations. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required because the work/alterations is/are not of a type listed under this paragraph.

1. Replacement of any existing drinking water pumping, storage, or treatment facilities, including chemical application facilities and residuals handling facilities, with new facilities of the same design and capacity, and at the same general location, as the existing facilities.

2. Replacement of any existing water main with a new main at the same location as the existing main, provided the new main will be either the same size as the existing main, no more than two sizes larger than the existing main, or no larger than the minimum size required or recommended in *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C.

3. Relocation of any existing water main to accommodate other utilities, provided the length of main being moved at each location will be no more than 100 linear feet.

4. Alteration, excluding maintenance or repair, of any structures that are not used to treat, store, or handle drinking water, drinking water treatment chemicals, or drinking water treatment residuals but that are used to house drinking water pumping or treatment facilities, including chemical application facilities and residuals handling facilities.

5. Installation or alteration, excluding maintenance or repair, of any alarm equipment required under Part III of this chapter.

(d) No construction permit is required for the types of work or alterations listed in subparagraphs 1. through 13. below. However, suppliers of water are responsible for ensuring that such work/alterations complies/comply with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C. Additionally, suppliers of water are responsible for notifying others about emergency or abnormal operating conditions, planned conversions from free chlorine to chloramines or vice versa, and planned maintenance or repair work as required under subsection 62-555.350(10), F.A.C.

1. Discontinuing use of any existing water main.

2. Temporarily converting from chloramines to free chlorine to protect public health during emergency operating conditions or to eliminate excess ammonia, oxidize nitrite and nitrifying bacteria, and control biofilm in a water distribution system.

3. Demonstration testing of any existing drinking water treatment facilities if the water from the facilities being tested will be discharged to waste or to upstream treatment facilities for full treatment at no greater than the maximum permitted rate (instead of being discharged directly to downstream treatment, storage, or distribution facilities).

4. Construction or installation of any pilot plant that will discharge water to waste (instead of discharging water to a public water system).

5. Any maintenance or repair work.

6. Construction or alteration of any roads, landscaping, or fencing.

7. Construction or alteration of any structures that are not used to treat, store, or handle drinking water, drinking water treatment chemicals, or drinking water treatment residuals and that are not used to house drinking water pumping or treatment facilities, including chemical application facilities and residuals handling facilities.

8. Installation or alteration of any well vent.

9. Any electrical work that does not affect compliance with Part III of this chapter, including installation or alteration of auxiliary power sources for water systems not subject to the standby power requirements in Part III of this chapter.

10. Any instrumentation work that does not affect compliance with Part III of this chapter, including installation or alteration of chlorination or hypochlorination alarm equipment where such equipment is not required under Part III of this chapter and including installation or alteration of power failure alarm equipment for water systems not subject to the standby power requirements in Part III of this chapter.

11. Installation or alteration of any valve, flow meter, or backflow preventer.

12. Installation or alteration of any fire hydrant or hydrant lead.

13. Installation or alteration of any water service line to a single building, including any water service line dedicated exclusively

to a fire protection or irrigation system serving a single building or its premises.

(2) Before commencing work or alterations for which a construction permit is required per subsection (1) above, the supplier of water or person who will perform such work or alterations shall submit a construction permit application to the Department using Form 62-555.900(1), Application for a Specific Permit to Construct PWS Components, effective August 28, 2003; or for a water main extension to be constructed under the general permit provision of Rule 62-555.405, F.A.C., shall notify the Department using Form 62-555.900(7), Notice of Intent to Use the General Permit for Construction of Water Main Extensions for PWSs, effective August 28, 2003; or for lead or copper corrosion control, or iron or manganese sequestration, treatment facilities to be constructed under the general permit provision of Rule 62-555.401, F.A.C., shall notify the Department using Form 62-555.900(18), Notice of Intent to Use the General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium PWSs, effective August 28, 2003. The above Forms 62-555.900(1), 62-555.900(7), and 62-555.900(18) are hereby adopted and incorporated by reference into this subsection. Copies of these forms are available from the Department of Environmental Protection, Drinking Water Section, M.S. 3520, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. One copy of the appropriate application or notice form shall be executed in full and submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department. A separate application or notice shall be submitted for each non-contiguous project; non-contiguous projects are projects that are neither interconnected nor located nearby one another (i.e., on the same site, on adjacent streets, or in the same neighborhood). Suppliers of water or persons applying for a permit to construct public water system components that will create a "new system" as described in subsection 62-555.525(1), F.A.C., shall also complete and submit, with their permit application, Form 62-555.900(20), New Water System Capacity Development Financial and Managerial Operations Plan, as incorporated into Rule 62-555.357, F.A.C. No supplier of water or person shall begin work for which a construction permit is required until obtaining a specific permit from the Department or until the Department determines that the work qualifies for use of a general permit.

(3) Per Section 471.003, F.S., projects involving construction or alteration of public water system components shall be designed under the responsible charge of one or more professional engineers licensed in Florida except as noted in paragraphs (a) and (b) below. The professional engineer(s) in responsible charge of designing a project shall certify on the construction permit application or notice that the design of the project provides assurance of compliance with Chapter 62-550, F.A.C., if applicable, and complies with this chapter.

(a) Any person acting as a public officer employed by any state, county, municipal, or other governmental unit of Florida may design any project that has a total estimated cost of $10,000 or less.

(b) Any plumbing contractor licensed in Florida may design any project that he or she will install if the project has a value of $50,000 or less and involves a plumbing system, which includes any public water system serving a single property, with fewer than 250 fixture units.

(4) Each "Application for a Specific Permit to Construct PWS Components" shall be accompanied by one copy of either a preliminary design report as described in paragraph (a) below or drawings, specifications, and design data as described in paragraph (b) below. (When completed, Part II of the "Notice of Intent to Use the General Permit for Construction of Water Main Extensions for PWSs" or Part II of the "Notice of Intent to Use the General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium PWSs" serves as a preliminary design report, and thus, it is unnecessary to submit a separate preliminary design report or drawings, specifications, and design data with a notice of intent to use a general permit.) Additional information may be required by the Department to clarify any construction permit application or notice; to clarify any preliminary design report or drawings, specifications, and design data; or to demonstrate that new or altered public water system components will comply with requirements in this chapter and provide drinking water meeting all applicable standards in Chapter 62-550, F.A.C

(a) Preliminary Design Reports. Preliminary design reports prepared under the responsible charge of one or more Florida-licensed professional engineers in accordance with subsection (3) above shall be signed, sealed, and dated by the professional engineer(s) in responsible charge. Preliminary design reports shall contain the following information where pertinent:

1. A brief description of the project and its purpose and an estimate of the cost to construct the project.

2. If the project will connect to, or become part of, an existing public water system, a description of the existing water system and discussion of the impact that the project will have on the existing water system. The description of the existing water system shall include the information in sub-subparagraphs a. through c. below if the project involves new or altered drinking water source facilities, drinking water treatment facilities, or finished-drinking-water pumping or storage facilities.

a. The name/location of existing water sources and the number and capacity of existing wells and raw surface water pumps.

b. The name/location of existing water treatment plants, the existing design capacity of each plant's source water facilities and each plant's treatment facilities and the permitted operating capacity of each plant, the existing type of treatment provided at each plant, and the number and capacity of existing finished-water pumps.

c. The name/location, type, and useful capacity of existing finished-water storage tanks.

3. The water service area, water use, and water service pressure information in sub-subparagraphs a. through d. below for the water system's service area or for the project's service area if the project involves only new or altered water mains or new or altered, finished-drinking-water booster pumping facilities.

a. A description of the nature and extent of both the present and the design water service area, including both the present and the design number of water service connections; an appraisal of both present and design commercial, institutional, and industrial water needs and fire fighting requirements; and discussion of both existing and proposed interconnections with other public water systems, including regulated consecutive systems.

b. Discussion of historical water use trends in the present water service area.

c. Both the present and the design water demands-average daily demand; maximum-day demand (including fire-flow demand, i.e., fire-flow rate times fire-flow duration, if fire protection is being provided); peak-hour demand (and if fire protection is being provided, fire-flow rate plus a background water demand equivalent to maximum-day demand other than fire-flow demand); and for small water systems that use hydropneumatic tanks or that are not designed to provide fire protection, peak instantaneous demand.

d. Both the present and the design water service pressure range.

4. If the project involves new or altered drinking water source facilities, the information in sub-subparagraphs a. through d. below.

a. The name/location of new water sources and documentation that new water sources are the best available sources as required under subsection 62-555.310(1), F.A.C.

b. Documentation that new wells meet applicable construction requirements in Chapter 62-532, F.A.C.

c. Discussion of sanitary hazards located within 500 feet of new wells or located less than 500 feet upstream of new surface water intakes; and for each well being connected to a community water system, documentation of continuing protection of the well from sanitary hazards as required under subsection 62-555.312(4), F.A.C.

d. A description of new or altered surface water intake structures, impoundments, and reservoirs.

5. If the project involves new or altered source water or treatment facilities for a drinking water treatment plant, the information in sub-subparagraphs a. through d. below.

a. The design capacity of the plant's source water facilities and the plant's treatment facilities. Refer to subsection 62-555.320(6), F.A.C.

b. Water quality data assessing applicable microbiological, physical, chemical, and radiological characteristics of raw water from all new, altered, or existing water sources for the plant. For new or altered wells, the water quality data shall include the sulfide-related measurements required under subsection 62-555.315(5), F.A.C., if applicable, and the results of the bacteriological survey required under paragraph 62-555.315(6)(b), F.A.C.

c. Discussion of applicable primary or secondary drinking water standards, including treatment technique requirements, in Part III of Chapter 62-550, F.A.C.; applicable sulfide treatment requirements in subsection 62-555.315(5), F.A.C.; and applicable disinfection requirements in subsection 62-555.320(12), F.A.C.

d. An evaluation of the adequacy of new, altered, or existing treatment facilities to meet applicable standards and requirements given the quality of raw water from all new, altered, or existing water sources for the plant. If the sulfide treatment requirements in subsection 62-555.315(5), F.A.C., are applicable, the water quality and treatment evaluation shall include the affirmative demonstration required under paragraph 62-555.315(5)(b), F.A.C.

6. If the project involves new or altered drinking water treatment facilities, the information in sub-subparagraphs a. through l. below.

a. The design daily operating period for the treatment facilities.

b. A flow diagram showing all new, altered, or existing water treatment operations and processes (including residuals handling operations), chemical application points, water pumping facilities, bypass arrangements, and recycle flows.

c. A hydraulic profile establishing operating water elevations through new, altered, or existing water treatment facilities at design flow rates.

d. For new or altered disinfection facilities, the design level of *Cryptosporidium*, *Giardia lamblia*, or virus inactivation to be achieved, if applicable, and the design minimum CT or ultraviolet dose if chemical or ultraviolet disinfection will be used to achieve *Cryptosporidium*, *Giardia lamblia*, or virus inactivation. Refer to subsection 62-555.320(12), F.A.C.

e. The design dose of water treatment chemicals.

f. An evaluation of the types, quantities, and characteristics of residuals generated by existing, altered, or new water treatment facilities.

g. Sizes, capacities, retention times, loading rates, schematic diagrams, and other design parameters and details sufficient to demonstrate that new or altered water treatment facilities (including chemical application facilities and residuals handling facilities) and water pumping facilities will comply with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C. The schematic diagrams of water treatment facilities, including chemical application facilities, shall show proper air gaps between drains or overflows from such facilities and sanitary or storm sewers.

h. For innovative or alternative processes and equipment, the supporting information required under subsection 62-555.320(2), F.A.C.

i. Assurance of compliance with the odor control requirements referenced under subsection 62-555.320(9), F.A.C.

j. For new or altered storage tank systems subject to regulation under Chapter 62-761, F.A.C., assurance that the storage tank systems will meet applicable performance standards in Chapter 62-761, F.A.C.

k. Discussion of housing and safety or protective equipment for new or altered chemical application facilities.

l. For new or altered fluoridation facilities, discussion of how the analytical equipment required under paragraph 62-555.325(2)(f), F.A.C., will be provided.

7. If the project involves new or altered, raw-water or finished-drinking-water pumping facilities, including well pumping facilities, the number and capacity of pumps and the basis therefor, schematic diagrams, and other design parameters and details sufficient to demonstrate compliance with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C.

8. If the project involves new or altered, finished-drinking-water storage facilities, the name/location and type of storage tanks, the useful capacity of storage tanks and the basis therefor, schematic diagrams, and other design parameters and details sufficient to demonstrate compliance with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C.

9. If the project involves new or altered water mains, including treatment plant process piping, conveying either raw, partially treated, or finished drinking water, the information in sub-subparagraphs a. through g. below.

a. Hydraulic analyses or other justification for the size of new or altered water mains.

b. Discussion of color coding or marking of new or relocated water main pipe that will convey finished water. Refer to subparagraph 62-555.320(21)(b)3., F.A.C.

c. Discussion of installation procedures for new or altered water mains, including bedding and cover for underground mains; thrust restraint at new or altered tees, bends, plugs, and hydrants; pressure and leakage testing of new or altered mains; support, anchorage, and protection for new or altered mains crossing above surface water; and special construction of flexible, restrained, or welded watertight joints for new or altered mains crossing under surface water.

d. Discussion of separation distances between new or relocated, underground water mains, including hydrant drains, and existing or proposed sanitary or storm sewers, wastewater force mains, reclaimed water pipelines, and on-site sewage treatment and disposal systems. The Department shall allow exceptions to the separation distances required under subsections 62-555.314(1) and (2), F.A.C., only if justification and alternative construction features are provided in accordance with subsection 62-555.314(5), F.A.C.

e. Justification for each conflict manhole, identification of the party responsible for maintaining each conflict manhole, and assurance of compliance with design and construction requirements relative to conflict manholes. Refer to paragraph 62-555.314(3)(b), F.A.C.

f. Discussion of how proper backflow protection will be provided at those new or altered service connections where backflow protection is required or recommended under Rule 62-555.360, F.A.C., or in *Recommended Practice for Backflow Prevention and Cross-Connection Control*, AWWA Manual M14, as incorporated into Rule 62-555.330, F.A.C.

g. Schematic diagrams and other design parameters and details sufficient to demonstrate that new or altered hydrants and

hydrant leads; air relief valves; valve, meter, or blow-off chambers; and backflow preventer installations will comply with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C.

10. The project site information in sub-subparagraphs a. through f. below.

a. A site plan showing the approximate location of new or altered public water system wells; new or altered structures used to treat, store, or handle drinking water, drinking water treatment chemicals, or drinking water treatment residuals; structures housing new or altered drinking water pumping or treatment facilities, including chemical application facilities and residuals handling facilities; and new or altered water mains, including treatment plant process piping, conveying either raw, partially treated, or finished drinking water. The site plan shall indicate sizes of new or altered water mains and approximate locations of meters, valves, hydrants, blow-offs, and backflow preventers; approximate locations of new or altered interconnections between public water systems; approximate dimensions and elevations of structures; and both the 100-year and the 10- to 25-year flood elevation and wave-action elevation.

b. If applicable, discussion of how the permit applicant is avoiding locating a new public water system, or an expansion of an existing public water system, at any site subject to significant risk from contamination or significant risk from floods, fires, or other disasters. Refer to subsection 62-555.310(2), F.A.C.

c. Discussion of how community water system structures, and electrical or mechanical equipment, used to treat, pump, or store drinking water, apply drinking water treatment chemicals, or handle drinking water treatment residuals will be protected from physical damage by the 100-year flood and the 100-year wave action and will remain fully operational and accessible during the 25-year flood and the 25-year wave action. The Department shall allow use of less than the 25-year flood or wave action, but not less than the 10-year flood or wave action, only if justification is provided in accordance with subsection 62-555.320(4), F.A.C.

d. Discussion of approximate ground water elevations in relation to subsurface structures.

e. A description of security features for new or altered drinking water wells and new or altered drinking water treatment, pumping, or storage facilities.

f. A description of areas where new or altered water mains, including treatment plant process piping, conveying either raw, partially treated, or finished drinking water will be installed above or under surface water, in aggressive soil, or in areas contaminated by low-molecular-weight petroleum products or organic solvents.

11. A description of materials that will be used for new or altered public water system components and documentation that the materials and components will comply with the following standards, regulations, or requirements:

a. The American Water Works Association standards as incorporated into Rule 62-555.330, F.A.C., if applicable. The Department shall allow use of pipe and appurtenances that do not conform to these standards only if documentation is provided in accordance with paragraph 62-555.320(21)(c), F.A.C.

b. NSF International Standard 61 as adopted in Rule 62-555.335, F.A.C., or other standards, regulations, or requirements referenced under paragraph 62-555.320(3)(b), F.A.C., if applicable. The Department shall allow exceptions to conformance with these standards, regulations, or requirements only if documentation and assurance are provided in accordance with paragraph 62-555.320(3)(d), F.A.C.

c. The lead use prohibition in Rule 62-555.322, F.A.C., if applicable.

12. Discussion of color coding of new or altered, aboveground piping at drinking water treatment plants.

13. A description of electrical systems and provisions for standby power at new or altered drinking water treatment or pumping facilities. Refer to subsection 62-555.320(14), F.A.C.

14. A description of operation and control strategies and instrumentation and control systems, including monitoring or alarm systems, at new or altered drinking water treatment, pumping, or storage facilities. Refer to subparagraph 62-555.320(8)(a)3., F.A.C.; subsection 62-555.320(11), F.A.C.; subparagraph 62-555.320(13)(a)9., F.A.C.; sub-subparagraph 62-555.320(13)(a)10.c., F.A.C.; subparagraph 62-555.320(13)(b)12., F.A.C.; and paragraph 62-555.320(14)(f), F.A.C., for required alarm systems.

15. A description of provisions for metering and sampling finished drinking water at new or altered drinking water treatment plants. Refer to subsections 62-555.320(16) and (17), F.A.C.

16. A schematic diagram of the entire finished-water supply (i.e., plumbing) system at new or altered drinking water treatment plants and pumping stations. The diagram shall show proper air gaps or mechanical backflow preventers where appropriate.

17. Discussion of procedures for disinfecting, and conducting bacteriological surveys or evaluations of, new or altered public water system (PWS) wells; new or altered drinking water treatment or storage facilities; and new or altered water mains conveying

either raw, partially treated, or finished drinking water, including treatment plant process piping, fire hydrant leads, and service lines that are under the control of the PWS and that have an inside diameter of three inches or greater. Refer to subsection 62-555.315(6), F.A.C., and Rule 62-555.340, F.A.C.

18. Discussion of procedures for keeping existing public water system components in operation, or for minimizing interruptions in the operation of the existing components, during construction of the project.

19. A description of drinking water additives and treatment chemicals that will be used or obtained under the construction project and documentation that the additives and chemicals will conform to NSF International Standard 60 as adopted in Rule 62-555.335, F.A.C., or other standards referenced under paragraph 62-555.320(3)(a), F.A.C.

(b) Drawings, Specifications, and Design Data. Drawings, specifications, and design data prepared under the responsible charge of one or more Florida-licensed professional engineers in accordance with subsection (3) above shall be signed, sealed, and dated by the professional engineer(s) in responsible charge. Drawings and specifications shall be sufficiently complete and detailed to allow the Department to determine whether the design of a project provides assurance of compliance with Chapter 62-550, F.A.C., if applicable, and complies with this chapter. Drawings shall be at least 18 inches by 24 inches and not larger than 36 inches by 42 inches, but photographically reproduced drawings with a reduced size as small as 11 inches by 17 inches are acceptable if the original drawings are drawn to a scale that will permit all necessary information to be plainly seen on the reduced-size reproductions. Design data shall include pertinent information described in subparagraphs 62-555.520(4)(a)1. through 19., F.A.C., if such information is not provided on the drawings or in the specifications.

(5) Each application for a specific permit to construct a new public water system subject to the jurisdiction of the Florida Public Service Commission (FPSC) shall be accompanied by one copy of the FPSC certificate authorizing the permit applicant to provide water service.

(6) Each construction permit application or notice shall be accompanied by the proper processing fee made payable to the Department of Environmental Protection or the appropriate Approved County Health Department. Processing fees for specific permits are listed in paragraph 62-4.050(4)(n), F.A.C. In cases where these fees vary depending upon drinking water treatment plant capacity, the capacity to be used in determining the proper fee is the design maximum-day capacity of the entire new or altered plant after construction. Processing fees for general permits are listed in paragraph 62-4.050(4)(p), F.A.C.

(7) If required by the Department, permit applicants shall publish a notice of permit application and furnish proof of publication in accordance with subsections 62-110.106(5), (6) and (9), F.A.C.

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

62-555.525 Capacity Development Provisions of Public Water System Permitting.

(1) This section applies to the following types of systems only. These are defined as "new systems" for the purposes of capacity development and referred to as "new systems" in this section.

(a) Entirely new community or non-transient non-community water systems constructed, or commencing operations, on or after October 1, 1999.

(b) Water systems that previously did not meet the definition of a community water system (CWS) or the definition of a non-transient non-community water system (NTNCWS) but that grow to become a CWS or NTNCWS through an infrastructure expansion constructed, or placed into operation, on or after October 1, 1999. Water systems that previously did not meet the definition of a CWS or the definition of an NTNCWS but that grow to become a CWS or NTNCWS by adding users without expanding their infrastructure are not considered "new systems" for the purposes of capacity development.

(2) Construction permit applications for infrastructure creating a "new system" as described in subsection (1) above shall include a demonstration that the "new system" will have financial, managerial, and technical capacity to function in compliance with Chapters 62-550, 62-555, 62-560, and 62-699, F.A.C. Construction permit applicants who fail to demonstrate that a "new system" will have financial, managerial, and technical capacity to function in compliance with Chapters 62-550, 62-555, 62-560, and 62-699, F.A.C., shall not receive a construction permit.

(3) Demonstrations of financial, managerial, and technical capacity for "new systems" shall contain the following:

(a) Documentation that the owner of the "new system" holds, or will hold, an operator license sufficient to fulfill the staffing

requirements in Chapter 62-699, F.A.C., or that the "new system" employs, or will employ, licensed operators to fulfill the staffing requirements in Chapter 62-699, F.A.C.

(b) A demonstration that the "new system" has, or will have, the capability to conduct the monitoring and reporting required under Chapter 62-550, F.A.C., and the capability to maintain the records required under Chapter 62-550, F.A.C.

(c) A demonstration that the "new system" has, or will have, the capability to meet the operation and maintenance requirements in this chapter.

(d) A demonstration of financial and managerial capacity as described in subparagraph 1. or 2. below.

1. "New systems" that will not be regulated by the Florida Public Service Commission shall demonstrate financial and managerial capacity using Form 62-555.900(20), New Water System Capacity Development Financial and Managerial Operations Plan, as incorporated into Rule 62-555.357, F.A.C. The completed Form 62-555.900(20) shall be sent to the appropriate Department of Environmental Protection District Office or Approved County Health Department.

2. "New systems" that will be regulated by the Florida Public Service Commission shall demonstrate financial and managerial capacity using Form 62-555.900(20), New Water System Capacity Development Financial and Managerial Operations Plan, as incorporated into Rule 62-555.357, F.A.C., except that such systems need not complete Parts II and III of the form (financial capacity). "New systems" in counties under the jurisdiction of the Florida Public Service Commission but not subject to its regulations are not exempt from completing Parts II and III of the form. The completed Form 62-555.900(20) shall be sent to the appropriate Department of Environmental Protection District Office or Approved County Health Department.

Rulemaking Authority 403.861(9), 403.8615 FS. Law Implemented 403.8615 FS. History–New 9-22-99, Amended 8-28-03.

62-555.528 Applying for Reratings of Public Water System Treatment Plants.

This section addresses procedures for obtaining a rerating (i.e., increase) of the permitted operating capacity of a drinking water treatment plant when no construction is necessary for the rerating.

(1) A construction permit is required to document any rerating of the permitted operating capacity of any water treatment plant.

(2) Suppliers of water seeking to have the permitted operating capacity of a water treatment plant rerated shall submit to the appropriate Department of Environmental Protection District Office or Approved County Health Department a construction permit application using Form 62-555.900(1), Application for a Specific Permit to Construct PWS Components, as incorporated into subsection 62-555.520(2), F.A.C.

(3) Each construction permit application shall be accompanied by one copy of a rerating report as described in this subsection. Additional information may be required by the Department to clarify any construction permit application; to clarify any rerating report; or to demonstrate that any rerated water treatment plant will provide drinking water meeting all applicable standards in Chapter 62-550, F.A.C. The rerating report shall be prepared under the responsible charge of one or more professional engineers licensed in Florida and shall be signed, sealed, and dated by the professional engineer(s) in responsible charge, and the rerating report shall contain the following information:

(a) A brief description of the water treatment plant for which a rerating of the permitted operating capacity is being sought. The description of the plant shall include the information in subparagraphs 1. and 2. below.

1. The name/location of water sources for the plant and the number and capacity of wells and raw surface water pumps supplying water to the plant.

2. The name/location of the plant, the existing permitted operating capacity of the plant, the type of treatment provided at the plant, and the number and capacity of finished-water pumps.

(b) The proposed new design capacity of the water treatment plant's source water facilities and the plant's treatment facilities. Refer to subsection 62-555.320(6), F.A.C.

(c) The daily operating period for the water treatment plant's source water and treatment facilities.

(d) Water quality data assessing applicable microbiological, physical, chemical, and radiological characteristics of raw water from all water sources for the plant.

(e) Discussion of applicable primary or secondary drinking water standards, including treatment technique requirements, in Part III of Chapter 62-550, F.A.C.; applicable sulfide treatment requirements in subsection 62-555.315(5), F.A.C.; and applicable disinfection requirements in subsection 62-555.320(12), F.A.C.

(f) A flow diagram showing all water treatment operations and processes (including residuals handling operations), chemical

application points, water pumping facilities, bypass arrangements, and recycle flows at the water treatment plant.

(g) An evaluation of the hydraulic capacity of the water treatment plant, including all water pumping facilities, showing that the plant will be hydraulically capable of operating at the proposed new design capacity. The evaluation shall include a hydraulic profile establishing operating water elevations through the plant.

(h) An evaluation of the quantities and characteristics of residuals generated when the water treatment facilities are operating at the proposed new design capacity.

(i) An evaluation of all water treatment facilities (including chemical application facilities and residuals handling facilities), water pumping facilities, and ancillary equipment at the drinking water treatment plant showing one of the following:

1. The facilities and equipment will meet pertinent design requirements in Part III of this chapter, including pertinent design requirements in the engineering references listed in Rule 62-555.330, F.A.C., when operating at the proposed new design capacity and, given the quality of raw water from all water sources for the plant, the facilities and equipment will meet applicable primary or secondary drinking water standards, sulfide treatment requirements, and disinfection requirements when operating at the proposed new design capacity; or

2. Based upon data from at least one full-scale or pilot-plant installation treating water of comparable quality during comparable seasonal fluctuations or based upon data from demonstration testing of the facilities and equipment, the facilities and equipment will meet applicable primary or secondary drinking water standards, sulfide treatment requirements, and disinfection requirements under all anticipated water quality conditions when operating at the proposed new design capacity.

(j) Assurance of compliance with the odor control requirements referenced under subsection 62-555.320(9), F.A.C., when the water treatment plant is operating at the proposed new design capacity.

(4) Each construction permit application shall be accompanied by the proper processing fee made payable to the Department of Environmental Protection or the appropriate Approved County Health Department. The proper processing fee for any rerating of the permitted operating capacity of a drinking water treatment plant shall be determined using the fee schedule in subparagraph 62-4.050(4)(n)1., 2., or 3., F.A.C., as applicable, and using the proposed new design maximum-day capacity of the plant.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.0877, 403.815, 403.861(2), (6), (7) FS. History–New 8-28-03.

62-555.530 Processing Applications or Notices for, and Issuing or Denying, Public Water System Construction Permits.

(1) Specific Construction Permits.

(a) The Department shall process each application for a specific permit in accordance with Rule 62-4.055, F.A.C.

(b) The Department shall review each specific permit application, including the preliminary design report or drawings, specifications, and design data accompanying the application, for the following:

1. Assurance of compliance with applicable primary or secondary drinking water standards, including treatment technique requirements, in Part III of Chapter 62-550, F.A.C. The construction permit applicant shall have the raw water from each new or altered drinking water source sampled and analyzed for applicable contaminants in accordance with Rule 62-550.550, F.A.C.

2. Assurance of compliance with subsection 62-524.650(2), F.A.C., if applicable. The construction permit applicant shall have the raw water from each new or altered drinking water source in a delineated area sampled and analyzed in accordance with Rule 62-524.600, F.A.C.

3. Compliance with applicable design and construction requirements in Part III of this chapter. The construction permit applicant shall have the raw water from new or altered public water system wells sampled and analyzed in accordance with subsection 62-555.315(5), F.A.C., if applicable, and paragraph 62-555.315(6)(b), F.A.C.

4. Compliance with applicable permitting requirements, including capacity development requirements, in Part V of this chapter.

(c) If the Department determines that a construction permit applicant has complied, or provided assurance of compliance, with applicable rules, the Department shall give the applicant a notice of permit issuance or a notice of intent to issue a permit in accordance with subsection 62-110.106(7), F.A.C. If the Department determines that a construction permit applicant has not complied, or provided assurance of compliance, with applicable rules, the Department shall give the applicant a notice of permit denial in accordance with subsection 62-110.106(7), F.A.C. All notices of permit denial shall contain the reasons for the denial.

(d) Under the circumstances described in paragraph 62-110.106(7)(a), F.A.C., the Department shall require the construction permit applicant to publish a notice of the Department's proposed action on an application for a specific permit and furnish proof of publication in accordance with subsections 62-110.106(5) and (9), F.A.C.

(2) General Construction Permits.

(a) The Department shall review each general permit notice for the following:

1. Assurance of compliance with applicable primary or secondary drinking water standards, including treatment technique requirements, in Part III of Chapter 62-550, F.A.C.

2. Compliance with applicable design and construction requirements in Part III of this chapter.

3. Compliance with applicable permitting requirements in Parts IV and V of this chapter.

(b) If the Department determines that a project qualifies for use of the noticed general permit, the Department need not take any action on the notice, and the permittee may use the general permit 30 days after giving notice to the Department. If the Department determines that a project does not qualify for use of the noticed general permit, the Department shall deny use of the general permit by notifying the proposed permittee in accordance with subsection 62-110.106(7), F.A.C. All notices denying use of a general permit shall contain the reasons for the denial.

(3) Whenever a project is designed under the responsible charge of one or more professional engineers licensed in Florida and is permitted by the Department under this chapter, construction of the project shall be inspected, for the purpose of determining in general if the construction proceeds in compliance with the Department permit and approved preliminary design report or drawings and specifications, under the responsible charge of a professional engineer licensed in Florida. The professional engineer in responsible charge of inspecting construction of a project shall certify on the certification of construction completion required under Rule 62-555.345, F.A.C., that construction of the project has been completed in accordance with the Department permit, including the approved preliminary design report or drawings and specifications, or in substantial conformance with Chapter 62-550, F.A.C., if applicable, and this chapter.

(4) Whenever a project is permitted by the Department under this chapter, complete record drawings shall be prepared for the project.

Rulemaking Authority 403.861(9) FS. Law Implemented 373.309, 403.0877, 403.815, 403.861(7), (10) FS. History–New 11-19-87, Formerly 17-22.725, Amended 1-18-89, 1-1-93, Formerly 17-555.530, Amended 8-28-03.

62-555.533 Conditions for Specific Construction Permits for Public Water Systems.

(1) Each specific construction permit issued by the Department shall include the general conditions listed in Rule 62-4.160, F.A.C.

(2) Each specific construction permit issued by the Department shall contain the following specific conditions as applicable:

(a) Each permit shall specify the effective date of the permit and the expiration date of the permit. No permit shall be issued for a term of more than five years.

(b) Each permit for a project involving new or altered source water or treatment facilities for a drinking water treatment plant shall specify the permitted maximum-day operating capacity of the plant and, if applicable, the permitted peak operating capacity of the plant in accordance with subsection 62-555.320(6), F.A.C.

(c) Each permit for a project designed under the responsible charge of one or more professional engineers licensed in Florida shall contain a specific condition requiring the permittee to retain a Florida-licensed professional engineer in accordance with subsection 62-555.530(3), F.A.C., to take responsible charge of inspecting construction of the project for the purpose of determining in general if the construction proceeds are in compliance with the permit, including the approved preliminary design report or drawings and specifications, for the project.

(d) Each permit shall contain a specific condition requiring the permittee to have complete record drawings produced for the project in accordance with subsection 62-555.530(4), F.A.C.

(e) Each permit for a project involving new or altered drinking water treatment facilities shall contain a specific condition requiring the permittee to provide an operation and maintenance manual for the new or altered treatment facilities to fulfill the requirements under subsection 62-555.350(13), F.A.C.

(f) Each permit shall contain a specific condition requiring the permittee to submit a certification of construction completion to the Department and obtain approval, or clearance, from the Department per Rule 62-555.345, F.A.C., before placing any public water system components constructed or altered under the permit into operation for any purpose other than disinfection, testing for leaks, or testing equipment operation. This specific condition shall not prohibit the permittee from cutting into existing water mains and returning the water mains to operation in accordance with subsection 62-555.340(5), F.A.C., without the Department's approval.

Additionally, the Department shall allow exceptions to this specific condition if construction permit applicants provide in the preliminary design report or drawings, specifications, and design data accompanying their permit application justification for each exception and assurance of public health protection.

(g) Each permit shall contain other specific conditions, including schedules for completing construction, to ensure that Department rules are met.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.087(4), 403.0877, 403.861(7), (10) FS. History–New 8-28-03.

62-555.536 Modification, Transfer, or Revocation of Public Water System Construction Permits.

(1) Except as noted in paragraphs (a) and (b) below, a construction permit modification is required for changes to a permitted project, including any project noticed for use of a general construction permit.

(a) No construction permit modification is required for the types of project changes listed in subparagraphs 1. through 5. below. However, permittees shall submit written notification to the Department before making such changes. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the change; and assurance that the change will comply with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C. Permittees may begin such changes seven days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit modification is required because the changes are not of a type listed under this paragraph.

1. Addition of, or changes to, work or alterations of the type described in paragraph 62-555.520(1)(c), F.A.C.

2. Addition of up to five percent more water main or 100 linear feet more water main, whichever is greater, at new locations within the same rights-of-way, easements, or sites, provided the additional water main will not pass through any conflict manholes, will not be installed in areas contaminated by low-molecular-weight petroleum products or organic solvents, will not connect previously separate public water systems or create a "new system" as described under subsection 62-555.525(1), F.A.C., and will not remain dry following completion of construction.

3. Addition of, or changes to, alternative construction features in accordance with subsection 62-555.314(5), F.A.C., due to unforeseen situations where it is not practicable to comply with the utility separation requirements in subsections 62-555.314(1) and (2), F.A.C.

4. Relocation of public water system components within the width of the same right-of-way or easement or within the same site. (Permittees may realign water mains to maintain required separation distances between the water mains and other utilities without submitting written notification to the Department.)

5. Changes in materials that will come into contact with drinking water or drinking water treatment chemicals and addition of, or changes in, drinking water additives or treatment chemicals that will be used or obtained under a construction project.

(b) No construction permit modification is required for the types of project changes listed in subparagraphs 1. through 4. below. However, permittees are responsible for ensuring that such changes comply with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C.

1. Addition of, or changes to, work or alterations of the type described in paragraph 62-555.520(1)(d), F.A.C.

2. Realignment of water mains within the width of the same right-of-way or easement, or within the same site, to maintain required separation distances between the water mains and other utilities.

3. Changes in materials that will not come into contact with drinking water or drinking water treatment chemicals.

4. Changes in the construction method for water mains (e.g., changes from open-trench construction to tunneling and vice versa).

(2) Before commencing work on project changes for which a construction permit modification is required per subsection (1) above, the permittee shall submit to the appropriate Department of Environmental Protection District Office or Approved County Health Department a written request for a permit modification. Each such request shall be accompanied by one copy of a revised construction permit application or notice as described in subsection 62-555.520(2), F.A.C., if appropriate, and each request for modification of a specific construction permit shall be accompanied by one copy of either a revised preliminary design report or revised drawings, specifications, and design data as described in subsection 62-555.520(4), F.A.C., if appropriate. Additionally, each such request also shall be accompanied by the proper processing fee made payable to the Department of Environmental Protection or

the appropriate Approved County Health Department. Processing fees for construction permit modifications involving substantial project changes (i.e., changes altering capacity, adding new treatment, causing additional or different drinking water standards to apply, or causing significantly greater or different environmental impacts) shall be the same as fees for a new construction permit (refer to subsection 62-555.520(6), F.A.C.). Processing fees for construction permit modifications involving other project changes, both major and minor, are listed in subparagraphs 62-4.050(4)(n)6. and 7., F.A.C., and paragraph 62-4.050(4)(s), F.A.C.

(3) Each request for a construction permit modification involving project changes shall be processed in accordance with Rule 62-555.530, F.A.C.

(4) Each request for extension of a specific construction permit shall be made and processed in accordance with subsection 62-4.080(3), F.A.C. Each such request shall be accompanied by the proper processing fee made payable to the Department of Environmental Protection or the appropriate Approved County Health Department. The processing fee for a construction permit extension is listed in subsection 62-4.050(4)(s), F.A.C. No specific construction permit shall be extended so as to remain in effect longer than five years.

(5) Each request for transfer of a specific construction permit and each request for transfer of a permittee's use of a general construction permit shall be made and processed in accordance with Rule 62-4.120, F.A.C., except that the current permittee and the proposed permittee shall jointly submit Form 62-555.900(8), Application for Transfer of a PWS Construction Permit, hereby adopted and incorporated by reference, effective August 28, 2003. Copies of this form are available from the Department of Environmental Protection, Drinking Water Section, M.S. 3520, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Each application for transfer of a construction permit shall be accompanied by the proper processing fee made payable to the Department of Environmental Protection or the appropriate Approved County Health Department. The processing fee for transfer of a construction permit is listed in paragraph 62-4.050(4)(s), F.A.C.

(6) Each suspension or revocation of a specific construction permit and each suspension or revocation of a permittee's use of a general construction permit shall be rendered in accordance with Rule 62-4.100, F.A.C.

Rulemaking Authority 403.861(9) FS. Law Implemented 403.087(6)(a), 403.815, 403.861(7) FS. History–New 8-28-03

62-555.900 Forms and Instructions.

The forms used by the Department in the Public Water System Supervision Program are listed below by form number and name. Each form has been incorporated into the rule that references it. Copies of these forms may be obtained by writing to the Department of Environmental Protection, Drinking Water Section, M.S. 3520, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. In addition, these forms are available at the Department of Environmental Protection's District offices, at the Approved County Health Departments, and on the Department of Environmental Protection's web site at www.dep.state.fl.us. Persons and public water systems shall report to the Department using the forms listed below or using computer-generated versions of the forms listed below provided such versions are identical to the forms listed below in every respect other than font type and style, font size, and character spacing.

(1) Application for a Specific Permit to Construct PWS Components, effective August 28, 2003.

(2) Monthly Operation Report for Subpart H Systems, effective October 14, 2004.

(3) Monthly Operation Report for PWSs Treating Raw Ground Water or Purchased Finished Water, effective August 28, 2003.

(4) Monthly Operation Report for Consecutive Systems that Do Not Treat Water, effective August 28, 2003.

(5) Monthly Operation Report for PWSs Fluoridating Water, effective August 28, 2003.

(6) Monthly Operation Report for Consecutive Systems that Receive Purchased Finished Water from a Subpart H System, effective April 3, 2003.

(7) Notice of Intent to Use the General Permit for Construction of Water Main Extensions for PWSs, effective August 28, 2003.

(8) Application for Transfer of a PWS Construction Permit, effective August 28, 2003.

(9) Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components into Operation, effective August 28, 2003.

(10) Asbestos-Free Certification or Asbestos Sampling Plan for PWSs, effective August 28, 2003.

(11) Monthly Operation Report for Summation of Finished-Water Production by CWSs that Have Multiple Treatment Plants, effective August 28, 2003.

(12) PWS Sampling Plan for Lead and Copper Tap Samples and Water Quality Parameters, effective August 28, 2003.

(13) Deleted.

(14) Deleted.

(15) Deleted.

(16) PWS Certification of Notification of Lead and Copper Tap Sample Results, effective October 1, 2010.

(17) Lead Public Education Program Report for PWSs, effective October 1, 2010.

(18) Notice of Intent to Use the General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium PWSs, effective August 28, 2003.

(19) Form number 62-555.900(19), Certification of Delivery of Consumer Confidence Report, effective April 10, 2003.

(20) New Water System Capacity Development Financial and Managerial Operations Plan, effective August 28, 2003.

(21) Form number 62-555.900(21), Certification of Delivery of Consumer Confidence Information to Supplied Systems, effective April 10, 2003.

(22) Form number 62-555.900(22), Certification of Delivery of Public Notice, effective 1-17-05.

Rulemaking Authority 403.8055, 403.861, 403.861(9) FS. Law Implemented 367.031, 403.0877, 403.861, 403.8615 FS. History–New 1-18-89, Amended 1-3-91, Formerly 17-555.900, Amended 12-10-96, 9-22-99, 4-3-03, 4-10-03, 8-28-03, 10-14-04, 1-17-05, 10-1-10.

WATER WELL CONSTRUCTION
DISCIPLINARY GUIDELINES
AND
CITATIONS DICTIONARY

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN CONSULTATION WITH
THE WATER MANAGEMENT DISTRICTS
THE DEPARTMENT OF HEALTH
THE FLORIDA GROUND WATER ASSOCIATION

Incorporated by Reference in Rule 62-531.300, F.A.C.
Effective Date June 22, 2014

TABLE OF CONTENTS

I. INTRODUCTION

The Water Well Construction Disciplinary Guidelines and Citations Dictionary (Citations Dictionary) was prepared by the Florida Department of Environmental Protection (Department) in consultation with the Water Management Districts (Districts), the Department of Health (DOH), and representatives of the water well contracting industry. The Citations Dictionary is adopted by rule in Chapter 62-531, Florida Administrative Code (F.A.C.).

The Citations Dictionary establishes the recommended fines and license points for violations of any part of Chapter 373, Part III, Regulation of Wells, Florida Statutes (F.S.), Chapters 62-531, 62-532, and the District rules for water well construction. The Citations Dictionary is indexed to allow for rapid searches of subject matter, citation numbers, and rule numbers using a common word listing. A brief summary of each rule is provided next to the rule number.

The Citations Dictionary states the recommended administrative fines and license points for the 1st, 2nd, and 3rd offense for violations of individual specific water well rules. The recommended administrative fines and license points established in the Citations Dictionary follow the range of administrative fines and license points shown in the Disciplinary Guidelines section of this manual under Administrative Fines and License Points Matrix. The recommended fines and points in Table 1 are generally set at the minimum or lower end of the range of fines and points. Administrative fines and points are based on the severity and repetition of a violation. The fines and points increase with the severity and repetition of a violation. A specific finding of mitigating or aggravating circumstances shall allow the Permitting Authority (Department, District or delegated permitting authority) to impose administrative fines and license points other than those listed in the Citations Dictionary as provided for in Chapter 373, F.S.

When taking enforcement action through a written order, the Permitting Authority may reference the Citations Dictionary citation number, rule number and rule summary and administrative fines and license points. When two or more citations may be applicable to the specific violation, the Permitting Authority should select the citation which best fits the violation. Administrative fines and license points are assessed against a licensed water well contractor through an enforcement order.

The Citations Dictionary provides the Permitting Authority with specific guidance and recommendations to administer a consistent statewide enforcement program across Water Management District jurisdictional boundaries.

Section 373.333, F.S., requires that any disciplinary action imposed by the Districts or the Permitting Authority for violation(s) of water well contractor rules must be applied consistently statewide and must address the following criteria:

- Specify a meaningful range of designated disciplinary actions based upon the severity and repetition of specific offenses.
- Distinguish minor violations from those violations that endanger public health, safety, and welfare or may contaminate the water resource.
- Inform the public of likely disciplinary actions that may be imposed for proscribed conduct.

II. UNLAWFUL ACTS

This section on "Unlawful Acts' shall apply to *any person*, including contractors. As used herein, pursuant to section 373.019, F.S., "person" means any and all persons, natural or artificial, including any individual, firm, association, organization, partnership, business trust, corporation, company, the United States of America, and the state and all political subdivisions, regions, districts, municipalities, and public agencies thereof.

As enumerated in Section 373.336(1), F.S., it is unlawful for any person to:

a) Practice water well contracting without an active license issued pursuant to Chapter 373, Part III, F.S.
b) Construct, repair, or abandon a water well, or operate drilling equipment for such purpose, unless employed by or under the supervision of a Florida licensed water well contractor or exempt under Section 373.326, F.S.
c) Give false or forged evidence to obtain a license.
d) Present as his or her own the license of another.
e) Use or attempt to use a license to practice water well contracting which license has been suspended, revoked, or placed on inactive status.
f) Engage in willful or repeated violation of Chapter 373, Part III, F.S., or of any Department rule or regulation or District or state agency rule or regulation relating to water wells, which endangers public health, safety, and welfare.

As enumerated in Section 373.336(2), F.S., it is unlawful for a business entity or individual to engage in water well contracting or to perform any activity for which a license as a water well contractor is required unless a licensed water well contractor is responsible for supervising such activity of the business entity or individual. Any unlicensed person who has engaged in the practice of water well contracting for which a license is required is subject to an administrative penalty not to exceed $5000 per occurrence.

Any person who violates any provision of Chapter 373, Part III, F.S., or rule, or order issued thereunder shall, upon conviction, be guilty of a misdemeanor of the second degree, punishable as provided in Sections 775.082 or 775.083, F.S. Continuing violation after an order or conviction shall constitute a separate violation for each day so continued

III. DISCIPLINARY GUIDELINES

This section on "Disciplinary Guidelines" shall apply to contractors, persons seeking to obtain a water well contractor license, and any person with an inactive license. Inactive licenses, as used in this manual, includes licenses that are suspended or in "inactive status," which occurs for a period of one year after the license is expired. A person with a revoked license or whose licenses expired more than one year prior are not subject to these disciplinary guidelines, but are subject to penalties under unlawful acts and Section 373.336(2), F.S.

A. Grounds for Disciplinary Action

Grounds for disciplinary action constitute any violation of Chapter 373, Part III, F.S., Chapters 62-524, 62-528, 62-531, 62-532, and 62-555, F.A.C., the District rules, any other rule, or an order of a District relating to well construction as incorporated therein. The Permitting Authority is authorized to enter an order imposing disciplinary action against a contractor, any person seeking to obtain a water well contractor license and any person with an inactive license. As

defined in Sections 373.333(4) and 373.336, F.S., the following acts constitute grounds for disciplinary action:

a) Attempting to obtain, obtaining, or renewing a license under Chapter 373, Part III, F.S., by bribery or fraudulent misrepresentation.
b) Being convicted or found guilty, regardless of adjudication, of fraud or deceit; or of gross negligence, incompetence, or misconduct in the performance of work; or of a crime in any jurisdiction, which directly relates to the practice of water well contracting or the ability to practice water well contracting. A plea of nolo contendere shall create a presumption of guilt to the underlying criminal charges, and the water management district shall allow the person being disciplined to present any evidence relevant to the underlying charges and the circumstances surrounding his or her plea.
c) Allowing any other person to use the license.
d) Violating or refusing to comply with any provision of Chapter 373, Part III, F.S., or a rule adopted thereunder by the Department or any District, or any order of a Water Management District previously entered in a disciplinary hearing.
e) Constructing, repairing, or abandoning a water well without first obtaining all applicable permits.
f) Having had administrative or disciplinary action relating to water well construction, repair, or abandonment taken by any municipality or county or by any state agency. The Water Management District will review these actions before it considers any disciplinary action of its own.
g) Practicing with a revoked, suspended, or inactive license.

B. Disciplinary Actions

The Permitting Authority may impose disciplinary action for violation of any provision of Chapter 373, Part III, F.S., or a rule adopted by the Department or any District, and as set forth in Section 373.333(5), F.S., as follows:

a) Denial of an application for licensure or for license renewal.
b) Revocation or suspension of a license.
c) Imposition of an administrative fine not to exceed $5,000 for each count or separate offense.
d) Placement of a licensed water well contractor on probation for a period of time subject to such conditions as the water management district may specify.
e) Restriction of a water well contractor's authorized scope of practice.

The disciplinary actions identified above may be enforced by any Permitting Authority for violation of water well contractor rules within the Permitting Authority's jurisdiction, regardless of which District issued the contractor license. In addition to disciplinary actions listed above, violations of the water well contractor rules may result in the need for specific corrective actions. Any new violation of the water well contractor rules during a period of disciplinary action shall be subject to new enforcement with additional disciplinary action, administrative fines, and license points.

C. Administrative Fines and License Points Assessment Criteria

Administrative fines and license points may be assessed for violations of water well contractor rules against any water well contractor. Administrative fines are assessed on a sliding scale and range from $100 to $5,000 depending upon the severity of the rule violation and the repetitive number of each rule violation (offense or count). License points are assessed against a water well contractor's license for violation of the water well rules and are accumulative. Table 1, Range of Administrative Fines and License Points Matrix, establishes

the range of administrative fines and license points for each violation enumerated in this Citations Dictionary. A violation consists of one count or offense of the same rule. Multiple violations of the same rule constitute the first, 2nd, 3rd, etc., offense. A violation of a different rule is a separate offense. An example of two separate rule violations is construction of a well without a permit and not properly grouting a water well.

TABLE 1
RANGE OF ADMINISTRATIVE
FINES AND LICENSE POINTS MATRIX

SEVERITY OF VIOLATION

REPETITION OF VIOLATION	MINOR	MODERATE	MAJOR
1st Offense Fine	$100 - $2000	$500 - $3000	$1000 - $5000
License Points	(2 - 4 pts)	(5 - 7 pts)	(8 - 10 pts)
2nd Offense Fine	$200 - $2000	$1000 - $3000	$2000 - $5000
License Points	(2 - 4 pts)	(5 - 7 pts)	(8 - 10 pts)
3rd or More Offenses Fine	$300 - $2000	$1500 - $3000	$3000 - $5000
License Points	(2 - 4 pts)	(5 - 7 pts)	(8 - 10 pts)

i. Severity of a Violation

The severity of a water well contractor rule violation is a significant factor in determining the recommended administrative fines and license points, as shown above in Table 1. The severity of a rule violation is differentiated as minor, moderate, and major. Minor violations are those that have no potential to endanger (harm) public health, safety, or welfare, or contaminate the ground water resource. Moderate violations are those that have the potential to endanger (harm) public health, safety, or welfare, or the potential to cause harm to the water resource. Major violations are those that have the potential to endanger public health, safety, or welfare and have the potential to cause harm to the water resource. The Citations Dictionary within this Manual provides the specific recommended penalty for each violation.

ii. Repetition of a Violation

Repetitive violations of water well contractor rules is the second significant factor in determining the recommended administrative fines and license points and as shown in Table 1. Recommended fines and points increase based on the repetition of an offense within a 36 month period. Repetition of an offense can also be used as an aggravating circumstance without time restriction as provided in part III.C.iii., below.

iii. Mitigating or Aggravating Circumstances

A specific finding of mitigating or aggravating circumstances shall allow the Permitting Authority to impose administrative fines and license points other than those listed in the Citations Dictionary.

Mitigating circumstances are good faith efforts on the part of the water well contractor to comply with the provisions of

Chapter 373, Part III, F.S., or a rule adopted by the Department or any District under the authority of Chapter 373, F.S. Examples of good faith efforts are the contractor reporting the violation to the Permitting Authority, correction of the violation by the contractor prior to enforcement action by the District, and voluntary restitution to the affected property owner or customer.

Aggravating circumstances are willful violations or refusals to comply with any provision of Chapter 373, Part III, F.S., or a rule adopted by the Department or any District under the authority of Chapter 373, Part III, F.S., or any order of a Permitting Authority previously entered in a disciplinary hearing. Examples of aggravating circumstances include repetitive rule violations; violations while on probation or suspension; being convicted or found guilty regardless of adjudication, of fraud or deceit; gross negligence; incompetence; misconduct in the performance of work; or of a crime in any jurisdiction that directly relates to the practice of water well contracting or the ability to practice water well contracting.

iv. License Point System and Workshop Program

The Water Well Contractor Violation Clearinghouse (clearinghouse) is a database that tracks water well contractor violations by contractor name and license number. Administrative fines and license points are assessed by the Permitting Authority for violations of water well rules. License points become effective once agency action is final and are cumulative regardless of actions later taken by the contractor to comply with the required corrective actions in the Order. License points can only be reduced by attendance at approved point reduction workshops or approved continuing education (CE) coursework classes.

The Department or the Districts will approve point reduction workshops or CE approved point reduction coursework whose subject matter is specifically related and relevant to water well construction practices, State of Florida water well construction statutes and rules, business management practices and health and safety. No more than 18 hours of workshop credits or approved CE coursework may be used to reduce license points in any biennial licensing period with a maximum of 27 hours in any two consecutive biennial licensing periods. Each approved workshop or approved CE class is rated at 1 point per classroom hour. CE coursework or point reduction workshop credits cannot be used for both point reduction and continuing education credits.

License points remain on a contractor's license for 3 consecutive years from the effective date of the Permitting Authority's final agency action, regardless of license renewal, unless reduced by attendance at a point reduction workshop. The effective date of a point reduction workshop is the date that the contractor attended and completes the workshop. The Districts offer license point reduction workshops and approved CE coursework to be used for license point reduction is available at the Department's Water Well Contractor Continuing Education Program, website: http://www.flwwceu.org/.

v. License Points and Restrictions

License Points and Restriction Matrix, Table 2, shows the recommended restrictions that can be placed on a water well contractor's license based on the accumulation of license points for violations of water well contractor rules. A contractor whose license has been revoked by the Permitting Authority must comply with any outstanding orders, re-take and pass the water well contractor licensing examination and pay all applicable fees before a license will be re-issued. A water well contractor's license will not be re-issued if the District permanently revokes a contractor's license. License points are assessed on the effective date of the consent order or final order. The effective date is the date the order is rendered. The Citations Dictionary within this Manual provides the specific recommended license point assessment for each violation.

TABLE 2
RECOMMENDED LICENSE POINTS AND RESTRICTION MATRIX

Points	Restriction	Duration
12 or more points in any 36 consecutive month period	Probation With Possible License Restrictions	180 days to 1 year or until competency is demonstrated
24 or more points in any 36 consecutive month period	Suspension – 1st Category	30 days to 180 days
36 or more points in any 36 consecutive month period	Suspension – 2nd Category	181 days to 1 year
48 or more points in any 36 consecutive month period	Revocation	Minimum of 1 year
60 or more points in any 36 consecutive month period	Permanent Revocation	Permanent

Note: No more than 18 hours of workshops can be used to reduce points in any biennial licensing period and no more than 27 hours in any two consecutive licensing periods.

INDEX OF MAIN SUBJECT TITLES

WATER WELL CONTRACTOR CITATIONS DICTIONARY
RECOMMENDED FINES and LICENSE POINTS

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Maintaining a Contractor's License**	OFFENSE	FINE	POINTS
1	40B-3.037 40C-3.011(4) 40C-3.038(1) 40D-3.037(1)(2) 40D-3.038(3),(4) 40E-3.038(3) 62-531.450(2)(a),(4)(f) 373.336(1)(a), F.S.	Practicing water well contracting with a revoked, suspended, or inactive license. ***{MAJOR}***	1st 2nd 3rd	$5000 $5000 $5000	10 10 10
2	62-531.450(1)	Practicing water well contracting for the construction, repair and abandonment of wells without a valid Florida water well contractor license	1st 2nd 3rd	$5000 $5000 $5000	10 10 10
3	40B-3.037 40C-3.038(1) 40D-3.037(1),(5) 40E-3.038(3) 62-531.450(2)(c)	Failure to provide truthful information or make truthful statements in an application for a Florida water well contractor license. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Improper Use of a Contractor's License**	OFFENSE	FINE	POINTS
4	40C-3.038(1) 40D-3.037(1),(2) 40E-3.038(3) 62-531.450(4)(c) 373.336(1)(d) or 373.333(4)(c), F.S.	Allowing any other person to use a licensee's license number. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
5	40B-3.341(3) 40C-3.532(1)(a) 40D-3.037(1) 40E-3.038(3)	Failure to comply with any provision of Chapter 373, Part III, F.S., any rule adopted by the WMDs or any order of the permitting authority. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Improper Use of a Contractor's License	OFFENSE	FINE	POINTS
	373.333(4)(d), F.S.	**Note**: An unlicensed water well contractor may be issued a CEASE AND DESIST ORDER as authorized by Section 373.323(7), F.S., and an administrative penalty not to exceed $5,000.00 per occurrence may be imposed as authorized by Section 373.333(8), F.S.			
6	62-531.450(1) 373.333(4)(b), F.S	Being convicted or found guilty, regardless of adjudication, of fraud or deceit; or of gross negligence, incompetency, or misconduct in the performance of work; or of a crime in any jurisdiction, which directly relates to the practice of water well contracting or the ability to practice water well contracting. ***{MAJOR}***	1st 2nd 3rd	$5000 $5000 $5000	10 10 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Homeowner Exemption	OFFENSE	FINE	POINTS
7	40A-3.051(3) 40C-3.051(3) 40D-3.041(1) 40D-3.301(2) 40E-3.301(1) 373.326(2)	Failure to comply with the water well rules relating to the construction and repair standards of water wells subject to the exemption for private wells two inches or smaller in diameter intended for their own use. ***{MODERATE}*** **Note:** All wells must be properly abandoned by a Florida licensed water well contractor.	1st 2nd 3rd	$500 $1000 $1500	NA NA NA

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Display of License	OFFENSE	FINE	POINTS
8	40B-3.037 40C-3.038(1) 40D-3.037(1),(2) 40E-3.038(3) 62-531.380(2) 373.323(9), F.S.	Failure to display a contractor license number on both sides of each piece of drilling equipment owned, leased, or operated by the contractor. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
9	Reserved				
10	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Display of License	OFFENSE	FINE	POINTS
11	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Construction Without A Permit	OFFENSE	FINE	POINTS
12	40A-3.041(1) 40B-3.041 40C-3.041 40C-3.492(1),(c) 40D-3.041(1) 40E-3.041(1) 64E-8.002(2) 62-531.450(1)	Failure to obtain a permit prior to the construction, repair or abandonment of a water well within the District, not exempted by the rule. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
13	40B-3.041 40C-3.041(5) 40D-3.041(1)(e) 40E-3.041(1)	Failure to obtain a water well construction permit prior to the construction, repair or abandonment of any well that serves a public water system well as defined in Chapter 62-550, or 64E-8, F.A.C. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
14	Reserved				
15	40A-3.041(15) 40B-3.041 40C-3.041(4) 40E-3.041(1)(2) 62-532.400(1)	Failure to obtain a water well construction permit to plug and abandon or to convert a test hole to a water well that is not exempted by rule. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
16	Reserved				
17	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Emergency Permit Requirements	OFFENSE	FINE	POINTS
18	40A-3.451(3)	Failure to submit the $25 emergency telephone authorization permit fee and the standard permit fee for all emergency permit applications. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
18	40A-3.451(4)	Failure to submit a permit application and written explanation within 24 hours of an emergency permit authorization. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
18	40B-3.451(3)	Failure to submit a permit application and permit fee within 10 days of issuing an oral emergency permit authorization. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
18	62-532.420(2)	Failure to submit a permit application in writing within 10 days after an emergency permit application is granted. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
18	40D-1.1022(3)	Failure to submit a permit application and permit fee within 48 hours of issuing an oral emergency permit authorization. ***{MINOR}***	1st 2nd 3rd	$100 $150 $200	2 3 4
18	40C-1.1010(3)	Failure to submit the permit application and permit fee within 24 hours after an emergency permit has been orally authorized. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
18	40E-3.451(3)	Failure to submit permit application and permit fee within 24 hours after making oral application. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
19	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Additional Information Requests	OFFENSE	FINE	POINTS
20	40A-3.301(2)(a) 40A-3.411(5) 40A-3.429(1)(b) 40C-3.101(5)(a) 40D-3.037(1),(2) 62-532.400(2)(b) 40E.3.101(4)	Failure to supply additional information as requested. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Change of Permitted Location	OFFENSE	FINE	POINTS
21	40A-3.041(9) 40D-3.037(1),(2),(3) 62-532.400(5)	Failure to apply for an amended permit prior to changing well location. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Abandonment, Permit Due to Unsuitability for Use	OFFENSE	FINE	POINTS
22	40A-3.041(12) 40C-3.531(2) 40D-3.531(1)	Failure to obtain a permit to abandon a well that has been drilled and found to be unsuitable for its intended use. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Display of Permit	OFFENSE	FINE	POINTS
23	40A-3.041(8) 40C-3.461(5) 40D-3.041(2)	Failure to make the permit available for inspection at the site during construction, repair, or abandonment of a well. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Display of Permit	OFFENSE	FINE	POINTS
	40E-3.461(8) 62-532.400(4)				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Exemption/Variances, Standard	OFFENSE	FINE	POINTS
24	40A-3.492(1)(d)	Failure to follow the provisions for an exemption to 40A-3 rules.***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
24	40B-3.051 40B-3.517(8) 40C-3.492(1)(g) 40D-1.1001(4)	Failure to comply with special conditions issued with a construction variance. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Oral Variance	OFFENSE	FINE	POINTS
25	40C-1.1010(3) 40D-1.1022(3) 40E-3.451(3)	Failure to submit a permit application after being granted an oral variance. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Permit Timeframes	OFFENSE	FINE	POINTS
26	40A-3.321 40B-3.321(3) 40C-3.321(2) 40D-3.321(2),(3),(4) 40E-3.321(2)(3)(a)(b)	Failure to request an extension prior to expiration of a permit in the event construction, repair, or abandonment is not complete. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Permit Timeframes	OFFENSE	FINE	POINTS
	62-532.400(6)				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Permits, Inaccurate Application	OFFENSE	FINE	POINTS
27	40C-3.301(6) 40C-3.492(1)(b) 40E-3.341(1)	Failure to provide accurate information through intentional misrepresentation when applying for a permit. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
27	40A-3.492(1)(b) 40B-3.341(1) 40C-3.301(6) 40D-3.101(1),(2) 40D-3.341(1) 40E-3.341(1)	Failure to provide accurate information when applying for a permit. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
28	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Permits, Condition Violations	OFFENSE	FINE	POINTS
29	40A-3.492(1)(d) 40B-3.341(2) 40B-3.492(1)(b) 40C-3.492(1)(g) 40C-3.502(1)(c) 40D-3.301(1) 40D-3.341(1) 40E-3.341(2) 40E-3.502(1)(d)	Failure to comply with the well permit conditions including permit conditions for wells constructed pursuant to Chapter 62-524, F.A.C. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Permits, Condition Violations	OFFENSE	FINE	POINTS
30	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Water Well Violations, General	OFFENSE	FINE	POINTS
31	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Completion Report Submittal	OFFENSE	FINE	POINTS
32	40B-3.411(1) 40B-3.492(1)(c) 40C-3.411(1) 40C-3.492(1)(a) 40D-3.411(1)(a),(b) 40D-3.492 (1)(a) 40E-3.411(1) 62-532.410	Failure to submit a completion report within 30 days after well completion. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
32	40A-3.411(1) 40C-3.492(1)(f) 40E-3.411(3)	Failure to submit a completion report within 30 days after permit expiration. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
32	40A-3.492(1)(g) 40B-3.492(1)(e) 40C-3.411(3) 40E-3.411(3)	Failure to notify the Permitting Authority that work was not performed or completed within 30 days of the expiration of the permit. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Completion Report Accuracy	OFFENSE	FINE	POINTS
33	40C-3.492(1)(b)	Failure of the licensed contractor to file an accurate completion report through intentional misrepresentation. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
33	40A-3.411(5) 40A-3.492(1)(f) 40B-3.492(1)(d) 40C-3.492(1)(a) 40D-3.411(1) 62-532.400(1)	Failure to file an accurate completion report. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
33	40E-3.411(1)	Failure to file a complete well completion report form. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
33	40B-3.492(1)(d) 40C-3.411(1)	Failure to submit a corrected completion report within the given timeframe as required by written notice. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
33	40A-3.411(3) 40D-3.411(1)(a) 62-532.400(1)	Failure to use the appropriate completion report form. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
33	40A-3.411(4)	Failure of the water well contractor to provide a copy of the completion report to the well owner. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Field Log, Any Well, Maintain During Construction	OFFENSE	FINE	POINTS
34	40B-3.411(3) 40C-3.411(2) 40C-3.492(1)(d),(e) 40D-3.411(2)	Failure to maintain a field log on-site during construction, repair or abandonment of a well. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Field Log, Any Well, Maintain During Construction	OFFENSE	FINE	POINTS
	40E-3.411(2)				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Drilling Records, Any Well, Inspection at any Reasonable Time	OFFENSE	FINE	POINTS
35	40C-3.461(7) 40B-3.411(3) 40E-3.411(2)	Failure to allow the Permitting Authority to inspect drilling records upon reasonable notice to the contractor. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Report, Test Well Requirements	OFFENSE	FINE	POINTS
36	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Drilling Samples	OFFENSE	FINE	POINTS
37	40B-3.411(5) 40C-3.492(1)(g) 40C-3.411(4) 40D-3.341(1) 62-532.400(2)(b)	Failure to provide drilling samples when required. ***{MODERATE}*** **Note:** Citation number 37 should be used only if citation number 29 is not used.	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Inspections for Standards Compliance	OFFENSE	FINE	POINTS
38	40A-3.461(1) 40B-3.461(1) 40C-3.461(1) 40D-3.461(1) 40E-3.461(1) 62-532.510(1)	Failure to allow access to inspect a well. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Inspections, Identification Tags	OFFENSE	FINE	POINTS
39	40C-3.461(3) 40C-3.492(1)(j)	Failure to place a tag on any well drilled in the District. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
40	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Abandonment, General	OFFENSE	FINE	POINTS
41	40A-3.531(1,2,3,4,5) 40B-3.461(5) 40B-3.531 40C-3.461(6) 40C-3.531(1) 40D-3.037(1) 40D-3.461(3),(4) 40D-3.531 40E-3.461(5) 40E-3.531(1,2,3) 62-532.500(5)	Failure to plug an abandoned well in accordance with the water well rules. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Abandonment, General**	OFFENSE	FINE	POINTS
41	40C-3.502(1)(b)	Failure to plug a test hole or exploratory well. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
41	40C-3.517(10)	Failure to clear objects from all wells prior to grouting (plugging). ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
41	62-532.500(5)	Failure to plug a well from bottom to top with neat cement grout or bentonite grout and with a minimum of a one-foot neat cement grout cap. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
41	40A-3.531(4)	Failure to plug a well from bottom to top with neat cement grout. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Notification, Public Water System Construction**	OFFENSE	FINE	POINTS
42	40A-3.461(4) 40B-3.492(1)(f) 40B-3.461(4) 40C-3.461(5) 40C-3.492(1)(h),(i) 40D-3.461(5)(a) 40E-3.461(4)	Failure to notify the Permitting Authority 24 hours prior to commencing drilling operations or placement of grout for any public water supply well as defined in Chapter 62-550 or 64E-8, F.A.C. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Telescoped Casing, Centralizers, Public Supply Well	OFFENSE	FINE	POINTS
43	40C-3.041(5) 40C-3.512(5)(a) 40D-3.507(3)(b) 62-532.500(3)(d)	Failure to provide at least two (2) centralizing spacers on overlapped telescoping casing in Public Water Supply wells. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
43	40D-3.507(3)(a)	Failure to provide a minimum overlap of 20 feet and two (2) casing centralizers for public supply wells and all wells 6 inches or more in diameter	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Well Apron, Public Supply	OFFENSE	FINE	POINTS
44	40C-3.041(5) 40D-3.037(1) 62-532.500 (4)(c)	Failure to provide a 6' x 6' concrete pad around the wellhead of a public water supply well. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Contamination, General	OFFENSE	FINE	POINTS
45	40A-3.529 40A-3.512(1),(2) 40B-3.502 40B-3.512(1),(2) 40C-3.502(1) 40C-3.512(1),(2) 40D-3.502 40E-3.502(1)	Failure to prevent uncontrolled surface flow to an aquifer or zone within an aquifer. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Contamination, General**	OFFENSE	FINE	POINTS
45	40A-3.512(2) 62-532.500(3)(e)	Failure to prevent an interchange of water between water bearing zones, that may result in deterioration of the quality of water in one or more water bearing zones. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
46	40A-3.492(1)(d) 40B-3.502 40C-3.502(1)(c),(d) 40D-3.037(1) 40D-3.502(6),(8) 40D-3.600 40E-3.502(1)(d)(e)	Failure to meet designated special construction criteria area requirements, such as those established by Chapter 62-524. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
46	40A-3.504(3) 62-532.400(7), Table 1	Failure to place a water well to comply with the setback distances. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
47	Reserved				
48	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Contamination, Tanks Monitor Well Standards, 62-761, F.A.C.**	OFFENSE	FINE	POINTS
49	40C-3.502(1)(a) 40D-3.502(4)	Failure to comply with requirements of Chapter 62-761, F.A.C. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
50	Reserved				
51	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Contamination, Tanks Monitor Well Standards, 62-761, F.A.C.	OFFENSE	FINE	POINTS

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Contamination, Well Location Standards	OFFENSE	FINE	POINTS
52	40A-3.504(1) 40B-3.504 40C-3.502(1) 40D-3.505(1) 40E-3.504(1)	Failure to locate a well so as not to pose a threat of contamination to the water resources. ***{MAJOR}]***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
52	40B-3.504 40C-3.502(2) 40D-3.037(1) 40D-3.505(2) 40E-3.504(2)	Failure to comply with well location standards of Chapter 62-532. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Contamination, Well Spacing Standards	OFFENSE	FINE	POINTS
53	40A-3.504(3)(a)	Failure to locate a recreational area or landscape irrigation well at least 75 feet from a sanitary hazard. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
53	40A-3.504(3)(e)	Failure to locate a domestic well 175 feet from storage and treatment areas of livestock farms. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
54	Reserved				
55	Reserved				
56	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Contamination, Well Spacing Standards	OFFENSE	FINE	POINTS

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Contamination, Verification and Exemption Requirements for Spacing Standards	OFFENSE	FINE	POINTS
57	40A-3.504(6)	Failure to follow the criteria listed in Rule 40A-3.504(2) for domestic well placement in a subdivision platted after 1972. ***{MODERATE}***	1st 1st 2nd 3rd	$500 $1000 $1500	5 6 7
58	40A-3.504(5) 40D-3.505(4)	Failure to obtain an exemption prior to constructing a well, which would not meet the setback requirements. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Condition	OFFENSE	FINE	POINTS
59	40A-3.507(1) 40C-3.507(1) 40D-3.037(1) 40E-3.507(1) 62-532.500(1)(a)	Failure to use casing and liner pipe that is in new or in like new condition. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Approved Materials	OFFENSE	FINE	POINTS
60	40A-3.507(1) 40C-3.507(1) 40D-3.507(1),(2) 40D-3.037(1) 40E-3.507(1) 62-532.500(1)(a)	Failure to use approved casing and liner materials. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Approved Materials	OFFENSE	FINE	POINTS
61	40A-3.507(2, 6) 40C-3.507(7),(8)(a) 40D-3.037(1) 40D-3.507(3) 40E-3.507(1) 62-532.500(1)(h),(i)	Failure to join casing and liner pipe in an approved manner. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Drive Shoe	OFFENSE	FINE	POINTS
62	40A-3.507(2) 40C-3.507(8)(a) 40C-3.517(11)(b) 40D-3.037(1) 40E-3.507(1) 62-532.500(1)(i)	Failure to use a drive shoe when installing casing by driven methods. ***{MAJOR}***	1st 1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Dimension	OFFENSE	FINE	POINTS
63	40A-3.507(1)-(7) 40C-3.507 (1,2,3,4,5,6) 40D-3.037(1) 40D-3.507 40E-3.507(1) 62-532.500(1) (a,b,c,d,e,f,g)	Failure to meet casing or liner pipe standards. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
64	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Non-Metallic and Stainless Installation	OFFENSE	FINE	POINTS
65	40A-3.507(7) 40C-3.507(8) 40D-3.037(1) 40D-3.502 40D-3.507 40E-3.507(1) 62-532.500(1)(i)	Failure to install non-metallic and stainless steel well casing or liner in an approved manner. ***{MAJOR}***	1st 1st 2nd 3rd	$1000 $2000 $3000	8 9 10
66	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Contamination, Clean Work Site	OFFENSE	FINE	POINTS
67	40A-3.512(1) 40B-3.512(1) 40C-3.512(1) 40D-3.502(3) 62-532.500(3)(f)	Failure to maintain a reasonably sanitary work site to prevent contamination of the resource. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Disinfection, General	OFFENSE	FINE	POINTS
68	40A-3.512(1) 40B-3.512(1) 40C-3.512(1)(a) 40D-3.502(3) 40E-3.512(1)(a)(b) 62-532.500(3)(g)	Failure to maintain contaminant free make-up water.***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
69	40C-3.512(1)(b)	Failure to follow disinfection requirements for filter pack materials. ***{MODERATE}***	1st 1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Disinfection After Construction	OFFENSE	FINE	POINTS
70	40A-3.512(6) 40C-3.512(1)(c)	Failure to properly clean and disinfect all water wells intended for potable use. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
71	40C-3.512(1)(d)	Failure to follow disinfection requirements for non-potable wells. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 2 2

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Disinfection After Construction	OFFENSE	FINE	POINTS
72	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Screen, Unconsolidated	OFFENSE	FINE	POINTS
73	40A-3.512(7) 40B-3.512(3) 40C-3.512(3) 40D-3.037(1) 62-532.500(3)(a)	Failure to use a screen in an unconsolidated stratum. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
73	40A-3.512(3) 40B-3.512(3) 40C-3.512(3) 40D-3.037(1) 62-532.500(3)(a)	Failure to extend casing in an unconsolidated stratum from land surface continuously to the screen. ***{MODERATE}***	1st 1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Well Casing Terminus, Above Grade Installation	OFFENSE	FINE	POINTS
74	40D-3.037(1)	Failure to extend casing from above the final grade (land surface) or cement pad to the well screen in unconsolidated geologic stratum or formation. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
74	40A-3.512(8) 40D-3.521(2) 62-532.500(4) (b)2.,3.,4 40E-3.521(1)(b)	Failure to extend well casing at least 12 inches above the final grade (land surface) or cement pad, unless an exemption has been granted. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Well Casing Terminus, Below Grade Installation	OFFENSE	FINE	POINTS
75	40C-3.512(6)(a,b,c) 40D-3.037(1) 40D-3.521(2) 62-532.500 (4)(b)2	Failure to follow criteria for below grade casing installation. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Screen Seal	OFFENSE	FINE	POINTS
76	40A-3.512(3) 40B-3.512(3) 40C-3.512(3) 40D-3.037(1) 62-532.500(3)(a)	Failure to attach the well screen with a watertight seal. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
76	40B-3.512(3) 40C-3.512(3)	Failure to seal the terminus of a well screen in an unconsolidated geologic stratum or formation. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
77	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Below Water Level	OFFENSE	FINE	POINTS
78	40A-3.512(4) 40B-3.512(4) 40C-3.512(4)(a),(7)(a) 40D-3.037(1) 40E-3.507(2)(b) 62-532.500(3)(b)	Failure to install casing to or below the static water level of the producing aquifer. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Below Water Level	OFFENSE	FINE	POINTS
78	40C-3.512(7)(b)	Failure to follow requirements for casing in a geologic stratum or area of chert. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Extension	OFFENSE	FINE	POINTS
79	40A-3.512(4) 40B-3.512(4) 40C-3.512(4)(a) 40D-3.037(1) 40E-3.512(3) 62-532.500(3)(b)	Failure to extend a continuous casing in a consolidated geologic stratum or formation from above the final grade (land surface) or cement pad, to the producing aquifer. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
80	40C-3.512(4)(b) 40D-3.037(1) 62-532.500(3)(b)	Failure to extend casing from above the final grade (land surface) or cement pad continuously into a consolidated geologic stratum or formation immediately overlying the producing aquifer. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Caving Zones or Screen, Caving Zones	OFFENSE	FINE	POINTS
81	40A-3.512(7) 40B-3.512(4) 40C-3.512(3) 40C-3.512(4)(b) 40D-3.037(1) 40E-3.512(2)(a) 62-532.500(3)(b)	Failure to case, line, or screen all caving zones within the well. ***{MODERATE}*** **Note:** Citation number 81 should be used only if citation numbers 78, 79 or 80 are not used.	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Sand Production or Screen, Sand Entrance	OFFENSE	FINE	POINTS
82	40A-3.512(7) 40C-3.512(7)(b) 40C-3.512(3) 40C-3.512(4)(b) 40E-3.512(2)(a)	Failure to construct a well, which prevents the entrance of sand into the well. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Telescoped, Centralizers	OFFENSE	FINE	POINTS
83	40C-3.512(5)(a) 40E-3.507(2)(d)(e) 40D-3.507(3)	Failure to use the minimum number of centralizers required by rule between the external and internal telescoping casing when the internal casing is grouted. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
83	40C-3.512(5)(a)	Failure to seal a telescoped well meeting the requirements of paragraph 40C-3.517(4)(c), with one packer and one centralizer. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4
83	40E-3.507(2)(e) 62-532.500(3)(d)	Failure to use not less than two centralizing spacers in the overlapped section of telescoping casing for a public water system well as defined in Chapter 62-555 or 64E-8, F.A.C. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Casing, Overlap	OFFENSE	FINE	POINTS
84	40B-3.517(7) 40C-3.512(5)(a) 40D-3.507(3) 40E-3.507(2)(d)(e)	Failure to join telescoping casing with an appropriate overlap. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 2 2
84	40C-3.512(5)(a) 40E-3.507(2)(e) 62-532.500(3)(d)	Failure to join telescoping casing with an appropriate overlap for a public water system well as defined in Chapter 62-555 or 64E-8, F.A.C. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Contamination, Backflow Prevention	OFFENSE	FINE	POINTS
85	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Annular Seal	OFFENSE	FINE	POINTS
86	40A-3.517 40B-3.517 40C-3.517 40D-3.517 40E-3.517	Failure to grout or seal a well to prevent movement of water along the well annulus from the land surface to the aquifer or between aquifers. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
87	40A-3.517 40C-3.517 40D-3.037(1) 40D-3.517 40E-3.517 62-532.500(3)(i)	Failure to seat the casing into a consolidated formation or seal the casing with neat cement grout. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
88	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Special Criteria (NWFWMD)	OFFENSE	FINE	POINTS
89	40A-3.517(1)	Failure to provide the minimum 2 inch grout layer between the bore hole and casing for all wells constructed by rotary methods south of the grout line established in Appendix I. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
89	40A-3.517(1)(a)	Failure to provide 2-inch grout layer in well annulus from the bottom of casing to land surface for wells completed into a consolidated formation with rotary drilling method. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Special Criteria (NWFWMD)	OFFENSE	FINE	POINTS
89	40A-3.517(1)(b)	Failure to provide a 2-inch grout layer in the well annulus from the well screen to land surface when the well is completed into an unconsolidated formation using rotary method and meeting the criteria of rule 40A-3.517(1)(b)1-6. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
89	40A-3.517(1)(c)	Failure to properly seal any well constructed by rotary method into an unconsolidated formation, which does not meet the criteria of 40A-3.517(1)(b), by filling the annulus with uncontaminated compacted sand and grouting the top of the casing with 1 cu-ft of cement. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
89	40A-3.517(2)(a)	Failure to construct a well by rotary method north of grout line established by Appendix I, in accordance with 40A-3.517(2)(a), if the well is a Public Supply, 6 inch diameter or larger, is within 1000 feet of a pollution source, or after approved exemption is within 75 feet of a septic system. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
89	40A-3.517(2)(b)	Failure to provide a 2-inch grout layer in the well annulus a minimum of 20 feet from bottom of casing into the last confining layer and grout top of casing with 1 cu-ft of cement, when well is completed into a consolidated formation using rotary method and well does not meet 40A-3.517(2)(a) requirements. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
89	40A-3.517(2)(d)	Failure to seal the well annulus with uncontaminated sand and the top of casing with 1 cu-ft of cement when using rotary method on wells that do not meet 40A-3.517(2)(c) criteria. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
90	40A-3.517(2)(c)	Failure to provide a 2-inch grout layer in the well annulus from top of screen to land surface when using rotary method drilling into an unconsolidated formation, if the well is a Public Supply well, Other Public well, is 6 inch diameter or larger, penetrates a confining bed, is within 1000 feet of a pollution source, or after exemption within 75 feet of a septic system. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Grouting, Special Criteria (SJRWMD &SWFWMD)**	OFFENSE	FINE	POINTS
91	40B-3.517(8)(a) 40C-3.512(8) 40C-3.517(8)(a)2. 40D-3.517(2)(b) 40E-3.517(7)(a)(b), (8)(d)(e)(f)(g) 62-532.200(4)	Failure to follow requirements for the use of bentonite grouts. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Grouting, Public Supply Well Criteria**	OFFENSE	FINE	POINTS
92	40A-3.517(3)(b) 40A-3.952 40C-3.041(5) 40D-3.037(1) 40D-3.517 62-532.500(3)(i)3.	Failure to meet the requirements of Rule 62-532.500(3)(i)3. when grouting a well that serves a public water system, limited use system, or bottled water plant (defined in Rule 62-532.200, F.A.C.). ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Grouting**	OFFENSE	FINE	POINTS
93	40B-3.517(2) 40C-3.517(2) 40D-3.037(1) 40D-3.507(4) 40E-3.517 62-532.500(3)(i)4.	Failure to seal the annular space surrounding the entire length of a casing less than 4 inches in outside diameter with a nominal one inch thickness of grout in a consolidated formation. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting	OFFENSE	FINE	POINTS
93	40B-3.517(3) 40C-3.517(3) 40D-3.037(1) 40D-3.507(4) 40E-3.517 62-532.500(3)(i)4.	Failure to seal the annular space surrounding the entire length of a casing equal to or greater than four (4) inches in outside diameter with a nominal two (2) inch thickness of grout in a consolidated formation. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Confining Beds Absent, Special Criteria (SRWMD)	OFFENSE	FINE	POINTS
94	40B-3.517(4)	Failure to grout to the top of or ten (10) feet into the confining bed overlying the producing aquifer, whichever is less. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
94	40B-3.517(5)	Failure to grout from the bottom of the casing to the top of the producing aquifer where confining beds are absent. *{MODERATE}*	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Unconsolidated	OFFENSE	FINE	POINTS
95	40A-3.517(1)(b),(2)(c) 40C-3.517(5)	Failure to seal all non-caving annular space in an unconsolidated geologic stratum or formation with neat cement grout. ***{MODERATE}***	1st 1st 2nd 3rd	$500 $1000 $1500	5 6 7
95	40C-3.517(6) 40C-3.517(7)(a) 40D-3.037(1) 40D-3.517 40E-3.517(2)(3) 62-532.500(3)(i)5.	Failure to properly grout a well obtaining water from or seated into an unconsolidated geologic stratum or formation. ***{MODERATE}***	1st 1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Unconsolidated	OFFENSE	FINE	POINTS
96	40E-3.517(2)	Failure to grout the annular space of wells constructed in unconsolidated formations from no more than ten feet above the top of the screen to the upper terminus. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
97	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Combination Wells, Pilot Hole Driving	OFFENSE	FINE	POINTS
98	40C-3.517(11)(a) 40C-3.517(11)(c) 62-532.500(3)(i)4.	Failure to grout from the bottom of the casing to land surface any driven casing which is placed in a borehole of larger diameter than the inside diameter of the driven casing. ***{MODERATE}*** **Note:** When citing 98, do not include citations 93 or 100.	1st 2nd 3rd	$500 $1000 $1500	5 6 7
98	40D-3.037(1) 40D-3.502(2) 62-532.500(3)(i)4.	Failure to use a drilling bit smaller in diameter than the outside diameter of a driven casing. ***{MODERATE}*** **Note:** When citing 98, do not include citations 93 or 100.			
98	40D-3.502(2)	Failure to use a drill bit equal to or smaller in diameter than the inside diameter of a driven casing for wells constructed using the combination method. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
98	40D-3.502(2)	Failure to have at least the first length of water-bearing casing (21 feet, excluding drive shoe) driven into the ground before any additional borehole is conducted for wells constructed using the combination method. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Upper Three Feet, Driven Casing	OFFENSE	FINE	POINTS
99	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Methods	OFFENSE	FINE	POINTS
100	40C-3.517(8)(e) 40D-3.037(1) 40D-3.517 40E-517(7)(c) 62-532.500(3)(i)4.	Failure to use a tremie pipe or other approved method when grouting or sealing the annular space. ***{MODERATE}***.	1st 2nd 3rd	$500 $1000 $1500	5 6 7
100	40A-3.517(4)(c) 40B-3.517(8)(d) 40C-3.517(8)(e) 40D-3.037(1) 40D-3.517(1),(2) 40E-517(7)(c) 62-532.500(3)(i)4.	Failure to introduce grout from bottom to top in the annular space. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
100	40C-3.517(11)(c) 40D-3.517(3) 40E-3.517(5) 62-532.500(3)(i)2.	Failure to seal driven casing using dry bentonite. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
101	40A-3.517(3)(a) 40C-3.041(5) 40D-3.037(1) 40D-3.507(4) 62-532.500(3)(i)4.	Failure to seal the annular space of any public water system well with neat cement grout from bottom to top when the borehole exceeds the inside diameter of the casing. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Mixing Requirements	OFFENSE	FINE	POINTS
102	40A-3.021(25) 40B-3.517(8)(a) 40C-3.517(8)(a)1.,2. 40D-3.517(2)(a)1.,(b) 40E-3.517(7)(a) 62-532.500(3)(i)6.	Failure to use the designated mixture of grout.***{MODERATE}*** **Note:** AWWA Standard A100-97 as revised is the basis for the criteria listed in 62-532.500(2).	1st 2nd 3rd	$500 $1000 $1500	5 6 7
103	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Centering Casing	OFFENSE	FINE	POINTS
104	40A-3.517(4)(b) 40B-3.517(8)(c) 40C-3.517(8)(d) 40D-3.037(1) 40D-3.517 62-532.500(3)(i)4.	Failure to center the casing in the borehole prior to grouting and sealing the annular space. ***{MODERATE}***	1st 1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Set Time	OFFENSE	FINE	POINTS
105	40A-3.517(4)(d)	Failure to observe the minimum set time for grout as specified in 40A-3.517 Table III, before proceeding. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
105	40B-3.517(8)(b) 40C-3.517(8)(b) 40D-3.517(2)(a)2. 40E-3.517(7)(b)	Failure to allow 12 hours set time for grout before proceeding with drilling operations. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
106	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Telescoped Casing	OFFENSE	FINE	POINTS
107	40B-3.517(7) 40C-3.512(5) 40C-3.517(4)(a) 40D-3.507(3) 40E-3.517(1) 62-532.500(3)(b)	Failure to seal the annular space between telescoping casing with grout, packers or both. ***{MODERATE}*** **Note:** The Department considers a telescoped casing continuous provided the grout requirements are satisfied.	1st 2nd 3rd	$500 $1000 $1500	5 6 7
107	40D-3.507(3)	Use of lead packers between casings ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
108	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Special Criteria, Telescoped Casing (SJRWMD)	OFFENSE	FINE	POINTS
109	40C-3.517(4)(c)	Failure to use a nominal external casing size of four (4) inches or less to construct a telescoped well in areas where caving clays are used in place of grout. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
109	40C-3.517(4)(c)	Failure to show that the clay materials are of a caving nature when installing a telescoped interior casing without annular grout. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
109	40C-3.517(4)(c)	Failure to limit the annular space to one inch or less around the internal telescoping casing where caving clay materials are present. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Grouting, Lost Circulation	OFFENSE	FINE	POINTS
110	40A-3.517(6) 40B-3.517(10) 40C-3.517(8)(f) 40D-3.037(1) 40D-3.517 40E-3.531(3)(a)	Failure to use approved methods and materials to bridge a lost circulation zone during grouting operations. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Well Seal, Temporary, Penetrating to Aquifer	OFFENSE	FINE	POINTS
111	40A-3.521(1) 40B-3.521(1) 40C-3.521(1) 40D-3.037(1) 40D-3.521(1) 40E-3.521 62-532.500(4)(a)1.	Failure to seal the well opening of a well penetrating an aquifer with a tamper resistant cover when there is a temporary interruption in work or use. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
112	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Well Seal, Permanent, Above Flood Level	OFFENSE	FINE	POINTS
113	40A-3.521(2) 40B-3.521(2) 40C-3.521(2)(a,b) 40D-3.037(1) 40D-3.521(2) 40E-3.521 62-532.500(4)(b)2.,5.	Failure to seal the upper terminus of a well casing with a watertight seal. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Well Vent, Above Flood Level	OFFENSE	FINE	POINTS
114	40A-3.521(2) 40B-3.521(2) 40C-3.521(2)(b) 40D-3.037(1) 40D-3.521(4)	Failure to vent above the 100-year flood level or two (2) feet above land surface. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Inspection Port	OFFENSE	FINE	POINTS
115	40A-3.521(2) 40B-3.521(2) 40C-3.521(2)(e) 40D-3.037(1) 62-532.500(4)(b)6.	Failure to install a required inspection port. ***{MINOR}***	1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Well Seal, Pump Installed	OFFENSE	FINE	POINTS
116	40A-3.521(2) 40B-3.521(2) 40C-3.521(2)(c) 40D-3.521(3) 40E-3.521 62-532.500(4)(a)3.	Failure to install pumping, piping, or electrical equipment through a well seal. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7
117	Reserved		1st 2nd 3rd	$100 $200 $300	2 3 4

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Explosives, Approval of	OFFENSE	FINE	POINTS
118	40A-3.525 40C-3.525 40D-3.525 40E-3.525	Failure to receive District approval prior to the use of explosives in well construction or development. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
118	62-532.500(3)(h)	Failure to receive a variance from the Department prior to the use of explosives in well construction or development. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Flowing Wells, Valve Controls	OFFENSE	FINE	POINTS
119	40A-3.529 40B-3.529 40C-3.529 40D-3.529 40E-3.529 62-532.500(4)(d)	Failure to valve an artesian well discharging to land surface. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Abandonment, Methods	OFFENSE	FINE	POINTS
120	40A-3.531(1) 40B-3.531(2) 40C-3.517(9) 40C-3.531(1,2,3) 40D-3.531(2),(3) 40E-3.531(1)(b),(3)	Failure to use a Florida licensed water well contractor to plug an abandoned a well. {***MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	NA NA NA

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Abandonment, Suitable Use or Standards Violation**	OFFENSE	FINE	POINTS
121	40A-3.531(2)(a)	Failure of any licensed water well contractor to plug any well which is not completed or suitable for its intended use before removing the well rig from the job site.***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
121	40A-3.531(1),(3) 40C-3.531(2) 40D-3.461(2) 40D-3.531 40E-3.531(1)	Failure to plug any well not constructed in accordance with the rule. ***{MAJOR}***	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Abandonment, Timeframe**	OFFENSE	FINE	POINTS
122	40A-3.531(2)(a) 40B-3.531(2) 40E-3.531(3)	Failure to plug an abandoned well within the time specified in writing by the District to the water well contractor. ***{MODERATE}***	1st 2nd 3rd	$500 $1000 $1500	5 6 7

CITATION NUMBER	RULE NUMBER	RULE SUMMARY **Abandonment, Restore Hydrologic Conditions**	OFFENSE	FINE	POINTS
123	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Geothermal Well Construction and Grouting Standards	OFFENSE	FINE	POINTS
124	62-532.500(2)	Failure to use geothermal well heat exchange piping, fitting materials, and pipe joining methods that meet the standards and specifications in the Closed-Loop/Geothermal Heat Pump Systems Design and Installation Standards document, published by the International Ground Source Heat Pump Association, Oklahoma State University, Revised Edition, Copyright 2008. **{MAJOR}**	1st 2nd 3rd	$1000 $2000 $3000	8 9 10
125	62-532.500(3)(c) and (i)6	Failure to seal all geothermal wells in accordance with the practices and methods in the Vertical Geothermal Heat Pump Systems Engineering Design and Field Procedures Manual, published by the International Ground Source Heat Pump Association, Oklahoma State University, First Edition, Copyright 2000. **{MAJOR}**.	1st 2nd 3rd	$500 $900 $1200	5 6 7
126	Reserved				
127	Reserved				
128	Reserved				
129	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY Geothermal Well Construction and Grouting Standards	OFFENSE	FINE	POINTS
130	Reserved				
131	Reserved				
132	Reserved				

CITATION NUMBER	RULE NUMBER	RULE SUMMARY DISTRICT SPECIFIC STANDARDS AND CRITERIA	OFFENSE	FINE	POINTS
133	40D-3.600	Failure to construct, modify and or repair a potable water well(s) in accordance with Special Well Construction Standards in the Dover Area **{MAJOR}**	1st 2nd 3rd	$1000 $2000 $3000	8 9 10

Note: When two or more citations may be applicable to a specific violation, the Permitting Authority should select the citation which best fits the violation.

CHAPTER 40A-2
REGULATION OF CONSUMPTIVE USES OF WATER

40A-2.011 Policy and Purpose.

The purpose of this chapter is to implement the provisions of Part II of Chapter 373, F.S., and the Water Resource Implementation Rule set forth in Chapter 62-40, F.A.C. Additional rules relating to water use are found in Chapter 40A-1, F.A.C., entitled General and Procedural, Chapter 40A-3, F.A.C., entitled Regulation of Wells and Chapter 40A-21, F.A.C., entitled Water Shortage Plan.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.171, 373.216, 373.219 FS. History–New 10-1-82, Amended 1-5-86, 10-1-95, 7-1-98, 5-29-14.

40A-2.021 Definitions.

(1) Alternative water supply – a water source that meets the definition in Section 373.019, F.S.

(2) Annual average daily withdrawal – an amount of water that is equal to the total volume of water withdrawn or diverted from all sources during one year divided by 365 days, and expressed in gallons per day (gpd).

(3) Applicant's Handbook – a document providing additional guidance and direction to applicants and Permittees regarding this Rule.

(4) Annual withdrawal – the quantity of water withdrawn or diverted during any 365 day period.

(5) Aquifer remediation use – the withdrawal of groundwater for the authorized removal of contaminants for the purposes of restoring water quality.

(6) Area of Resource Concern – areas delineated on the map contained in Rule 40A-2.902, F.A.C., where resource concerns exist related to water availability, water quality, high anticipated growth in demand or other factors.

(7) Base flow – the sustained or fair-weather streamflow. Base flow is the difference between streamflow (total runoff) and direct runoff. Base flow originates from rainwater that percolates downward to the water table and moves laterally through the groundwater aquifer toward the streams.

(8) Capacity – the amount of water that can be withdrawn or diverted by a ground or surface water pump within a 24-hour period. The capacity of a pump is derived by multiplying the rating of a pump in gallons per minute by 1,440 minutes (24 hours),

expressed in gallons per day.

(9) Closed system – an air conditioning/heat pump supply well and return flow well used to inject water carrying no additives into the same permeable zone from which the water was withdrawn by the supply well.

(10) Department – the Florida Department of Environmental Protection.

(11) Disapproved facility – a facility that has been formally disapproved or deemed unsuitable by the District, Department, or Florida Department of Health.

(12) District – the Northwest Florida Water Management District.

(13) District offices – locations staffed by District personnel from which materials incorporated by reference into the rule can be obtained. These are:

(a) District Headquarters, Permitting Section, 152 Water Management Drive, Havana, FL 32333-9700;

(b) Tallahassee Field Office, Carr Building, Suite 225, 3800 Commonwealth Blvd., MS LS225, Tallahassee, FL 32399; and

(c) Crestview Field Office, 180 E. Redstone Avenue, Crestview, FL 32539-7385.

(14) Domestic use or domestic consumption – the self-supplied use of water for individual personal household purposes such as drinking, bathing, cooking, sanitation, or cleaning, which occurs in a private residence, and includes no more than one rental residence or no more than four non-rental residences served by one well.

(15) Facility – structure that allows for the withdrawal or diversion of water from a particular source. Facilities include, but are not limited to, wells, pumps, pipelines, flumes, canals, ditches, swales, artificial ponds, etc.

(16) Florida-friendly landscaping – a landscaping method detailing nine principles that conserve water, protect the environment, are adaptable to local conditions, and are drought tolerant as outlined in Section 373.185, F.S.

(17) General Water Use Permit – a permit granted by rule to an entity for those non-exempt water uses that meet specific criteria outlines in this Chapter.

(18) Governing Board – the Governing Board of the Northwest Florida Water Management District created under Section 373.073, F.S.

(19) Harm – harm occurs when a use, diversion or withdrawal causes adverse impact to an existing legal use of water, offsite land use, water resource or environmental feature associated with the resource. De minimus impacts do not constitute harm.

(20) Heating or cooling use – a type of commercial water use involving heating, air-conditioning, or other cooling uses.

(21) Illegally constructed facility – a well constructed or repaired without the appropriate permit having been issued pursuant to Chapter 40A-3, F.A.C., or that is not compliant with the requirements of Chapter 40A-3, F.A.C.

(22) Impact offset – the use of reclaimed water to reduce or eliminate a harmful impact that has occurred or would otherwise occur as a result of other surface water or groundwater withdrawals as described in section 2.2.3.3 of the Water Use Permit Applicant's Handbook and in subsection 62-40.416(7), F.A.C.

(23) Individual Water Use Permit – a permit granted by the Governing Board or Executive Director, subject to the evaluation and approval of the application pursuant to procedures described in Rule 40A-1.203, F.A.C.

(24) Maximum daily withdrawal – the maximum volume of water withdrawn or diverted during any consecutive 24 hour period, expressed in gallons per day.

(25) Maximum monthly withdrawal – the maximum volume of water withdrawn or diverted during any given month of the year, expressed in gallons.

(26) Minimum flow – the minimum flow for a water course at which further withdrawals would be significantly harmful to the water resources or ecology of the area.

(27) Minimum level – the minimum water level for groundwater in an aquifer or for a surface water body at which further withdrawals would be significantly harmful to the water resources of the area.

(28) Non-potable water use – water not utilized for domestic use, public water supply or other human consumption as defined herein.

(29) Reasonable-beneficial use – the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner which is both reasonable and consistent with the public interest.

(30) Reclaimed water – as defined in Section 373.019, F.S., water that has received at least secondary treatment and basic disinfection, and is reused after flowing out of a wastewater treatment facility.

(31) Secondary use – use of water by an entity, separate from a water supplier (as defined herein), whose source of water, in whole or in part, is from a water supplier.

(32) Substitution credit – the use of reclaimed water to replace all or a portion of an existing permitted use of resource-limited surface water or groundwater, allowing a different user or use to initiate a withdrawal or increase its withdrawal from the same resource-limited surface water or groundwater source, provided that the withdrawal creates no net adverse impact on the limited water resource or creates a net positive impact if required by the district rule as part of a strategy to protect or recover a water resource, as described in section 2.2.3.3 of the Water Use Permit Applicant's Handbook.

(33) System – two or more water withdrawal or diversion facilities which are derived from or used to serve properties that are physically proximate and either share the same infrastructure or are operated as a common enterprise.

(34) Water Resource Caution Area – a geographic area, officially designated by the Governing Board by rule that is experiencing, or is anticipated to experience within the next 20 years, critical water resource problems as provided by the criteria identified in subsection 40A-2.801(1), F.A.C.

(35) Water supplier – an entity, such as a water utility or regional water authority, that has obtained a water use permit to withdraw water, of which some portion is distributed to another entity for a secondary use.

(36) Water use – the use, diversion or withdrawal of water regulated under this Chapter.

(37) Well casing size – the nominal diameter (within 0.5 inch) of the water bearing casing at the upper terminus (e.g., 4-inch well casing means casing 4.5 inches outside diameter as a standard dimension).

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.171, 373.216 FS. History–New 10-1-82, Amended 5-17-83, 3-1-84, 1-5-86, 8-1-89, 5-31-92, 11-2-92, 11-1-93, 10-1-95, 7-1-98, 1-1-05, 2-27-06, 5-29-14.

40A-2.041 Permits Required.

(1) Unless expressly exempted by law or District rule, a water use permit must be obtained from the District prior to any use, withdrawal, or diversion of water.

(2) The District issues water use permits in two forms, Individual Water Use Permits and General Water Use Permits. General Water Use Permits are issued by rule.

(3) An individual permit is required for any use of water which is non-exempt and does not qualify for a General Water Use Permit by rule in accordance with Rule 40A-2.061, F.A.C.

(4) Under certain circumstances, the District is authorized to issue a temporary water use permit pursuant to Section 373.244, F.S.

(5) A water user shall obtain one permit for all withdrawals and diversions that are intended to serve contiguous property. Two or more properties represented by their owners to be separate properties shall be aggregated and treated as a single property for permitting purposes when the District determines that the properties are physically proximate and either (a) share the same withdrawal facilities and related infrastructure or (b) are operated as a common enterprise. However, when multiple use types, as defined in Rule 40A-2.501, F.A.C., are served by separate withdrawal facilities, the District is authorized to issue separate individual permits.

Rulemaking Authority 373.044, 373.113, 373.116, 373.118, 373.171 FS. Law Implemented 373.171, 373.219, 373.226 FS. History–New 10-1-82, Amended 1-5-86, 5-4-87, 8-1-89, 5-31-92, 11-1-93, 10-1-95, 7-1-98, 1-1-05, 2-27-06, 5-29-14.

40A-2.051 Exemptions.

No permit is required under Rule 40A-2.041, F.A.C., for water used strictly for domestic use which occurs in a private residence, and includes no more than one rental residence or no more than four non-rental residences served by one well.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.171, 373.216, 373.219 FS. History–New 10-1-82, Amended 5-17-83, 3-1-84, 1-5-86, 8-1-89, 5-31-92, 11-2-92, 10-1-95, 7-1-98, 1-1-05, 2-27-06, 1-4-10, 5-29-14.

40A-2.061 General Water Use Permits by Rule.

(1) General Water Use Permit by Rule.

(a) The Board hereby grants a General Water Use Permit for all non-exempt, water uses of water that satisfy the following criteria:

1. Have a cumulative average annual daily withdrawal less than 100,000 gallons per day on an annual basis;

2. Are from facilities having a cumulative withdrawal capacity of less than 1,000,000 gallons per day;

3. Are from groundwater wells less than eight (8) inches in diameter;

4. Are from surface water facilities which have a cumulative intake diameter less than six (6) inches;

5. Are consistent with requirements of any applicable mandatory reuse zones; and

6. Are not within a Water Resource Caution Area or Area of Resource Concern as delineated in Rule 40A-2.902, F.A.C.

(b) The General Permit by rule shall be subject to the Standard conditions in section 5.1 and the applicable Specific conditions for the use type in section 5.2.1 of the Water Use Permit Applicant's Handbook, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03889) is hereby incorporated by reference in its entirety and can be obtained from the District's website (nwfwater.com) or from District offices upon request.

(2) General Water Use Permit by Rule for Short-Term Projects.

(a) The Board hereby grants a General Water Use Permit for the use of water in conjunction with the following short-term projects: dewatering operations as described in Rule 40A-2.501, F.A.C., for purposes such as utility construction and foundation installation; lake drawdown for construction or repair; hydrostatic pipeline testing; exploratory groundwater testing; or aquifer performance tests; provided the use meets the following criteria:

1. Has a duration of 180 days or less;

2. Has a maximum daily withdrawal of less than five (5) million gallons;

3. Has a maximum total project withdrawal or diversion of:

a. Less than 100 million gallons for dewatering operations if all discharge is retained on the project site;

b. Less than 100 million gallons for lake drawdown; or

c. Less than 35 million gallons for projects other than dewatering or lake drawdown.

4. Dewatering is occurring only in the uppermost, water table aquifer.

5. Will not dewater to a depth below 0.0 feet NGVD within 1,000 feet of saline water laterally, except when dewatering water with a chloride concentration of greater than 1,000 milligrams per liter;

6. Will not occur within 500 feet of a wastewater treatment plant rapid-rate land application system permitted under Part IV of Chapter 62-610, F.A.C.;

7. Will not occur within 1,000 feet of any known groundwater contamination in the water bearing zone being dewatered; and

8. Will not occur within 1,000 feet of a freshwater wetland.

(b) Linear projects, such as roads, utilities, or pipelines, qualify for multiple General Water Use Permits by Rule having a rolling 90-day duration, in which the dewatering operation at the end of each 90-day period occurs more than one (1) linear mile from the location at the beginning of each 90-day period.

(c) The General Water Use Permit by rule shall be subject to the Standard conditions in section 5.1 of the Water Use Permit Applicant's Handbook.

(3) General Water Use Permit by Rule for Closed-Loop Systems.

(a) The Board hereby grants a General Water Use Permit for the use of water in closed-loop, cooling/heating systems for swimming pools and air conditioning units provided the following criteria are met:

1. The system withdraws less than an annual daily average of 100,000 gallons;

2. The withdrawal and discharge points are on property legally controlled by the permittee;

3. The water is discharged to the same source, aquifer, or permeable zone from which it is withdrawn;

4. The discharge or injection has been permitted by the Department or is exempt from such permitting;

5. The water has no contact or mixing with other water sources, additives, and chemicals; and

6. The use is not from the Floridan Aquifer within the Santa Rosa, Okaloosa, and Walton County Water Resource Caution Area.

(b) The General Water Use Permit by rule shall be subject to the Standard conditions in section 5.1 and the applicable Specific conditions for the use type in section 5.2.1 of the Water Use Permit Applicant's Handbook.

(4) General Water Use Permit by Rule for Aquifer Remediation Activities.

(a) The Board hereby grants a General Water Use Permit for the use of water for aquifer or groundwater remediation, provided the following criteria are met:

1. The project is conducted according to a Remedial Action Plan approved by the federal, state or local agency having legal jurisdiction over such activities;

2. The treated effluent is returned via infiltration or direct injection into the same source, aquifer, or permeable zone from which it is withdrawn; and

3. The treated effluent meets applicable Department water quality standards.

(b) The General Water Use Permit by rule shall be subject to the Standard conditions in section 5.1 of the Water Use Permit Applicant's Handbook.

(5) General Water Use Permit by Rule for Specific Uses in Portions of Gadsden County.

(a) The Board hereby grants a General Water Use Permit for water uses in the Upper Telogia Creek Drainage Basin Water Resource Caution Area and Area of Resource Concern of Gadsden County, provided the following criteria are met:

1. The system has an annual average daily withdrawal less than 15,000 gallons;

2. Groundwater is withdrawn from wells that are four (4) inches or less in diameter;

3. Surface water facilities have a cumulative diameter less than four (4) inches;

4. Surface water use does not exceed ten (10) percent of the base flow of the supplying water body; and

5. Use is consistent with requirements of any applicable mandatory reuse zones.

(b) The General Water Use Permit by rule shall be subject to the Standard conditions in section 5.1 and the applicable Specific conditions for the use type in section 5.2.1 of the Water Use Permit Applicant's Handbook.

(6) General Water Use Permit by Rule for Specific Uses in Portions of Santa Rosa County.

(a) The Board hereby grants a General Water Use Permit for water uses in the Water Resource Caution Area of Santa Rosa County, provided the following criteria are met:

1. The system has an annual average daily withdrawal less than 15,000 gallons;

2. Groundwater is withdrawn from wells that are four (4) inches or less in diameter and have a total depth of 100 feet or less;

3. Surface water facilities have a cumulative diameter less than four (4) inches; and

4. Use is consistent with requirements of any applicable mandatory reuse zones.

(b) The General Water Use Permit by rule shall be subject to the Standard conditions in section 5.1 and the applicable Specific conditions for the use type in section 5.2.1 of the Water Use Permit Applicant's Handbook.

(7) General Water Use Permit by Rule for Specific Uses in Portions of Okaloosa and Walton Counties.

(a) The Board hereby grants a General Water Use Permit for water uses in the Water Resource Caution Area of Okaloosa and Walton counties, provided the following criteria are met:

1. The system has an annual average daily withdrawal less than 15,000 gallons;

2. Groundwater is withdrawn from wells that are four (4) inches or less in diameter and do not penetrate any competent and continuous confining formation;

3. Surface water facilities have a cumulative diameter less than four (4) inches; and

4. Use is consistent with requirements of any applicable mandatory reuse zones.

(b) The General Water Use Permit by rule shall be subject to the Standard conditions in section 5.1 and the applicable Specific conditions for the use type in section 5.2.1 of the Water Use Permit Applicant's Handbook.

(8) General Water Use Permit by Rule for Specific Uses in Portions of Bay County.

(a) The Board hereby grants a General Water Use Permit for water uses in the Area of Resource Concern of Bay County, provided the following criteria are met:

1. The system has an annual average daily withdrawal less than 100,000 gallons;

2. Groundwater is withdrawn from wells that are less than six (6) inches in diameter;

3. Surface water facilities have a cumulative diameter less than four (4) inches; and

4. Use is consistent with requirements of any applicable mandatory reuse zones.

(b) The General Water Use Permit by rule shall be subject to the Standard conditions in section 5.1 and the applicable Specific conditions for the use type in section 5.2.1 of the Water Use Permit Applicant's Handbook.

(9) The permittee shall not utilize the facility associated with a General Water Use Permit by rule for any type of water use other than those authorized under Rule 40A-2.061, F.A.C.

(10) For a use that qualifies for a General Water Use Permit to be afforded protection as an existing legal use in the evaluation of subsequent applications, all withdrawal facilities must be registered, at the time the use begins, with the District in one of the following ways:

(a) The issuance of a well construction permit by the District pursuant to Chapter 40A-3, F.A.C.;

(b) The registration of any legally constructed well by submittal of the facility information required on the well construction permit application; or

(c) The registration of any surface water facility by submittal of: the information required in the Water Use Permit Application (Form 160), Section IV – Sources of Water, in the table "Summary of Surface Water Facilities"; the owner's name and address; and a map showing the intake location.

(11) Notwithstanding the criteria enumerated for any General Water Use Permit in this section, a general water use permit is not authorized for any uses, withdrawals or diversions of water from an illegally constructed or disapproved facility.

(12) Notwithstanding the criteria enumerated for any General Water Use Permit in this section, an individual permit is required for all uses, withdrawals or diversions of water for which evidence indicates the use is likely to cause harm to existing legal uses, offsite land uses or water resources and related environmental features.

(13) Any person whose withdrawal otherwise meets the criteria for a General Water Use Permit by Rule may submit an application to obtain an individual permit at their discretion.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.118, 373.216 FS. History–New 1-5-86, Amended 5-31-92, 11-2-92, 11-1-93, 10-1-95, 1-1-05, Formerly 40A-2.302, Amended 5-29-14.

40A-2.101 Content of Application.

(1) In order to obtain an individual permit, an applicant shall file with the District a Water Use Permit Application including any necessary supplemental forms and attachments required for the type of permit and the water use(s) for which application is being made. The application shall consist of all completed forms, attachments, the correct application fee identified in Rule 40A-2.201, F.A.C., and other documentation submitted in support of the application, which shall constitute information sufficient to demonstrate that the water use meets the criteria and conditions established in Rule 40A-2.301, F.A.C.

(2) The following District forms shall be used to request a new permit or to request renewal or modification of an existing permit. All permit application forms described in this section have been approved by the District Governing Board and are hereby incorporated by reference into this rule. Forms are available from the District's website (nwfwater.com) or from District offices.

(3) All Individual Water Use Permit applications whether for: a new permit; formal modification of an existing permit or renewal of an existing permit, shall be made using the Water Use Permit Application, Form No. 160, effective May 29, 2014, (http://www.flrules.org/Gateway/reference.asp?No=Ref-03846). Applicants shall also submit one or more of the following supplemental forms, as appropriate, for each type of water use, as defined in Rule 40A-2.501, F.A.C., being proposed in the permit application:

(a) Supplemental Form A – Agricultural Use, Form No. 160A, effective May 29, 2014, (http://www.flrules.org/Gateway/reference.asp?No=Ref-03847).

(b) Supplemental Form B – Industrial/Commercial Use, Form No. 160B, effective May 29, 2014, (http://www.flrules.org/Gateway/reference.asp?No=Ref-03848).

(c) Supplemental Form C – Landscape/Recreation Use, Form No. 160C, effective May 29, 2014, (http://www.flrules.org/Gateway/reference.asp?No=Ref-03849).

(d) Supplemental Form D – Mining/Dewatering Use, Form No. 160D, effective May 29, 2014, (http://www.flrules.org/Gateway/reference.asp?No=Ref-03850).

(e) Supplemental Form E – Public Supply Use, Form No. 160E, effective May 29, 2014, (http://www.flrules.org/Gateway/reference.asp?No=Ref-03851).

(f) Supplemental Form F – Other Use, Form No. 160F, effective May 29, 2014, (http://www.flrules.org/Gateway/reference.asp?No=Ref-03852).

(g) Supplemental Form G – Institutional Use, Form No. 160G, effective May 29, 2014, (http://www.flrules.org/Gateway/reference.asp?No=Ref-03853).

(h) Supplemental Form H – Diversion and Impoundment, Form No. 160H, effective May 29, 2014, (http://www.flrules.org/Gateway/reference.asp?No=Ref-03854).

(i) All applications for non-potable use shall include reuse feasibility information required per section 2.2.3.1 of the Water Use Permit Applicant's Handbook. Information from the reuse provider shall be submitted on the Reuse Feasibility Information form, NWFWMD Form No. 174, effective November 1, 2013 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03261).

(4) Applicants proposing an impact offset through the use of reclaimed water to reduce or eliminate a harmful impact must provide substantiating materials to show that the proposed offset meets the criteria of subsection 62-40.416(7), F.A.C., effective

May 6, 2013 (http://www.flrules.org/Gateway/reference.asp?No=Ref-04144) which is hereby incorporated by reference and can be obtained from the District's website (nwfwater.com) or from District offices upon request.

(5) Applicants proposing the use of a substitution credit derived from the use of reclaimed water must provide substantiating materials to show that what they are proposing meets the criteria of subsection 62-40.416(8), F.A.C., effective May 6, 2013 (http://www.flrules.org/Gateway/reference.asp?No=Ref-04144) which is hereby incorporated by reference and can be obtained from the District's website (nwfwater.com) or from District offices upon request.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.109, 373.223, 373.229, 373.250, 403.0877 FS. History–New 10-1-82, Amended 1-5-86, 5-31-92, 11-2-92, 11-1-93, 10-1-95, 7-1-98, 1-4-10, 10-20-13, 1-15-14, 5-29-14.

40A-2.201 Fees.

There shall be a non-refundable water use permit application processing fee according to the following schedule for all new, modification, or renewal applications:

Annual Average Daily Withdrawal Processing Fee* Amounts (Gallons)	
Less than 25,000 gallons per day, average	$100.00
25,000 to 99,999 gallons per day, average	$250.00
100,000 to 499,999 gallons per day, average	$500.00
500,000 to 999,999 gallons per day, average	$1,000.00
1,000,000 to 1,999,999 gallons per day, average	$2,000.00
2,000,000 gallons or more per day, average	$3,000.00
Permit Transfer or Letter Modification	$50.00
Temporary Permit (in addition to the fees identified above)	$50.00

*Any county or municipality meeting the criteria specified in Section 218.075, F.S., may request a reduction in the required fee amount as provided in Rule 40A-1.2025, F.A.C.

**No transfer fee is required if the transfer is processed in conjunction with a permit modification or renewal.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.109 FS. History–New 10-1-82, Amended 1-5-86, 8-1-89, 1-1-90, 1-1-91, 10-1-95, 5-29-14.

40A-2.223 Reservation of Water.

(1) At U.S. Geological Survey gauging station No. 02358000, Apalachicola River at Chattahoochee, the magnitude, duration and frequency of observed flows are reserved for the protection of fish and wildlife of the river, floodplain and Apalachicola Bay.

(2) At U.S. Geological Survey gauging station No. 02358700, Apalachicola River near Blountstown, the magnitude, duration and frequency of observed flows are reserved for the protection of fish and wildlife of the river, floodplain and Apalachicola Bay.

(3) At and below U.S. Geological Survey gauging station No. 02359170, Apalachicola River near Sumatra, the magnitude, duration and frequency of observed flows are reserved for the protection of fish and wildlife of the river, floodplain and Apalachicola Bay.

(4) At U.S. Geological Survey gauging station No. 02359000, Chipola River near Altha, the magnitude, duration and frequency of observed flows are reserved for the protection of fish and wildlife of the Chipola River, Apalachicola River, the associated floodplains and Apalachicola Bay.

(5) The Governing Board finds that consumptive withdrawals of surface water from the main stem of the Apalachicola River are not in the public interest and therefore reserves from use by permit the flows specified in subsections (1), (2), and (3). Such reservation is made for all seasons of the year.

(6) The Governing Board finds that consumptive withdrawals of surface water from the main stem of the Chipola River and the Chipola Cutoff are not in the public interest and, therefore, reserves from use by permit the flows specified in subsection (4). Such reservation is made for all seasons of the year.

(7) For purposes of this Rule 40A-2.223, F.A.C., consumptive withdrawals shall mean withdrawals minus returns but shall not include evaporative losses. Diversions of surface water for cooling purposes, fish and wildlife propagation, fish and wildlife refuge, water based migratory bird hunting refuges and similar diversions are exempt from the provisions of this Rule 40A-2.223, F.A.C.,

provided that such diverted water, minus evapotranspiration, is returned to the Apalachicola River Basin.

(8) Nothing in this section shall exempt diversions as specified in subsection (7) from obtaining water use permits required elsewhere in this Chapter 40A-2, F.A.C.

(9) The Governing Board finds that surface water withdrawals by the City of Port St. Joe from the Chipola River is an alternative water supply as contemplated by Sections 373.019 and 373.707, F.S., and are therefore exempt from the provisions of this Rule 40A-2.223, F.A.C. Nothing in this section shall exempt the City of Port St. Joe from the permitting requirements of this Chapter 40A-2, F.A.C.

Rulemaking Authority 373.044, 373.113, 373.171, 373.216, 373.219 FS. Law Implemented 373.216, 373.219, 373.223 FS. History–New 2-27-06, Amended 5-29-14.

40A-2.301 Conditions for Issuance.

(1) To obtain a water use permit, renewal, or modification, an applicant must provide reasonable assurance that the proposed water use, on an individual and cumulative basis:

(a) Is a reasonable-beneficial use;

(b) Will not interfere with any presently existing legal use of water; and

(c) Is consistent with the public interest.

(2) In order to provide reasonable assurances that the water use is reasonable-beneficial, an applicant shall demonstrate that the use:

(a) Is a quantity that is necessary for economic and efficient use;

(b) Is for a purpose and occurs in a manner that is both reasonable and consistent with the public interest;

(c) Will utilize a water source that is suitable for the consumptive use;

(d) Will utilize a water source that is capable of producing the requested amount;

(e) Except when the use is for human food preparation or direct human consumption, will utilize the lowest quality water source that is suitable for the purpose and is technically, environmentally, and economically feasible;

(f) Will not cause harm to existing offsite land uses resulting from hydrologic alterations;

(g) Will not cause harm to the water resources of the area in any of the following ways:

1. Will not cause harmful water quality impacts to the water source resulting from the withdrawal or diversion;

2. Will not cause harmful water quality impacts from dewatering discharge to receiving waters;

3. Will not cause harmful saline water intrusion or harmful upconing;

4. Will not cause harmful hydrologic alterations to natural systems, including wetlands or other surface waters; and

5. Will not otherwise cause harmful hydrologic alterations to the water resources of the area;

(h) Is in accordance with any minimum flow or level and implementation strategy established pursuant to Sections 373.042 and 373.0421, F.S.; and

(i) Will not use water reserved pursuant to Section 373.223(4), F.S.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.042, 373.0421, 373.185, 373.219, 373.223, 373.226, 373.227, 373.228, 373.229, 373.232, 373.236, 373.239, 373.250 FS. History–New 10-1-82, Amended 5-17-85, 1-5-86, 11-1-93, 10-1-95, 5-29-14.

40A-2.302 General Water Use Permit – Criteria, Limitations and Conditions.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.118, 373.216 FS. History–New 1-5-86, Amended 5-31-92, 11-2-92, 11-1-93, 10-1-95, 1-1-05, Transferred to 40A-2.061.

40A-2.311 Competing Applications.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.233, 373.216 FS. History–New 10-1-82, Amended 10-1-95, Repealed by Section 3, Chapter 2012-31, Laws of Florida, 5-27-12.

40A-2.321 Duration of Permits.

The Governing Board or Executive Director shall specify for each water use permit issued (new, modification, or renewal) a specific period of time the permit will be valid. The District shall notify the permit applicant, pursuant to the provisions of Rule 40A-1.203,

F.A.C., of the recommended duration for the requested permit. The Governing Board or Executive Director is authorized to approve permit durations up to the statutory limits specified in Section 373.236, F.S., provided that the applicant demonstrates reasonable assurance that the proposed use meets the conditions for issuance in Rule 40A-2.301, F.A.C., for the requested duration. Otherwise, the Governing Board or Executive Director is authorized to issue permits for a shorter duration that reflects the period for which such reasonable assurances can be provided. Special duration factors listed in section 1.5.1 of the Water Use Permit Applicant's Handbook shall be considered in determining permit durations.

(1) The District shall extend a permit duration for public water supply utilities which have demonstrated water savings achieved through implementation of a water conservation plan. The definition of a goal-based water conservation plan and the length of the extension will be determined as described in section 2.3.7.8 of the Water Use Permit Applicant's Handbook.

(2) The Governing Board is authorized to grant a permit of lesser duration than those specified above, in order to address special duration factors as described in section 1.5.1 of the Water Use Permit Applicant's Handbook or to provide for the protection of the resource or existing legal uses (e.g., insufficient data for long-term authorization) or for other considerations as provided by Section 373.236, F.S.

(3) Nothing herein shall preclude or otherwise prevent the Governing Board from terminating, revoking, or temporarily suspending any permit in accordance with these rules or taking such other action as may be provided for in the permit.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.185, 373.219, 373.236 FS. History–New 10-1-82, Amended 5-17-83, 1-5-86, 11-2-92, 7-1-98, 5-29-14.

40A-2.331 Modification of Permits.

(1) A permittee may seek modification of any terms of an unexpired permit pursuant to Section 373.239, F.S.

(2) The District shall modify a permit, or delete or modify any limiting conditions on a permit, to insure the continued reasonable-beneficial use of water or to protect the water resources of the District.

(3) Modifications shall be requested by either:

(a) Formal application, using the appropriate application forms incorporated in subsection 40A-2.101(1), F.A.C., and including the appropriate fee. Formal modification applications that are made in the last year of the permit term shall be processed as a renewal application with modification, if renewal of the permit is desired by the permittee. Upon request and documentation by the permittee, modification applications that are deemed by the District to be substantial, as described in the Water Use Permit Applicant's Handbook section 1.4.4.1, shall be processed as a renewal application with modification. A request for formal modification shall be treated as a new application and shall be reviewed in accordance with the rules in effect at the time the modification application is filed.

(b) Letter request, on the Water Use Permit Letter Modification Request Form, Form No. 161, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03863), which is hereby incorporated by reference into this section and available from the District's website (nwfwater.com) or from District offices, including a description of the proposed modification and the appropriate fees. Letter requests can be utilized provided that:

1. The proposed modification involves water use of less than 100,000 gallons per day and the permittee establishes that a change in conditions has resulted in the water allowed under the permit becoming inadequate for the permittee's need or that the proposed modification would result in a more efficient utilization of water than is possible under the existing permit;

2. The annual average daily withdrawal or diversion will not increase by more than 10% of the total permitted quantity;

3. The total permitted withdrawal or diversion from any surface water body, including the proposed modification, will not exceed 10% of the baseflow or storage volume of the waterbody;

4. The use(s) of the water will not change, except to discontinue and remove any use(s);

5. The source(s) of water will not change, except to add reuse;

6. The modification does not cause the permit to exceed any delegation limits set by the Governing Board for final agency action at staff level;

7. The proposed changes would not cause impacts beyond those considered in the initial permit;

8. The proposed modification will not affect a Reservation of Water identified in Rule 40A-2.223, F.A.C., or affect an established Minimum Flow or Level;

9. The proposed modification will not extend a permit duration, except as provided for in subsection 40A-2.321(4), F.A.C., as incentive for water conservation; and

10. Well replacements must be constructed within the same aquifer unit, be located within 2,640 feet of the original well, be located at least 1,000 feet from wetlands, lakes, and springs, and have a pumping capacity less than or equal to the original well.

(c) There is no limit to the number of letter modifications that a permittee may request during a permit term, provided that the sum total of the withdrawal or diversion quantity modifications do not exceed the limits specified in paragraph (3)(b) above.

(d) A request for modification by letter in accordance with paragraph (3)(b) above need only provide information and meet the conditions for issuance in Rule 40A-2.301, F.A.C., that relate to the modification request, in accordance with Section 373.239(2), F.S. A permit which has expired or which has been revoked shall not be subject to modification.

(e) If the District determines that a request for letter modification does not meet the qualifications stated above, the applicant will be informed that the desired changes must be made through the formal modification process.

(f) Approval authority for letter modification requests shall rest with the Executive Director and be exercised without a hearing. If a request for a letter modification is not authorized by the Executive Director, the Permittee may, at his discretion, apply for formal modification of the permit.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.171, 373.223, 373.239 FS. History–New 10-1-82, Amended 1-5-86, 10-1-95, 7-1-98, 5-29-14.

40A-2.351 Transfer of Permits.

(1) A Permittee may request that the District transfer his Individual Water Use Permit to another entity with that entity's consent provided that the Permittee is compliant with the terms and conditions of the permit and that appropriate legal control is maintained.

(2) Persons who wish to continue an existing, permitted water use and who have acquired ownership or legal control of permitted water withdrawal or diversion facilities or the land on which the facilities are located must apply to transfer the permit to themselves within 45 days of acquiring ownership or legal control of such facilities or such land.

(3) A request for permit transfer shall be made using NWFWMD Form No. 163 (Request for Water Use Permit Transfer, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03864) which is hereby incorporated by reference and available from the District's website (nwfwater.com) or from District Offices; and must include the required processing fee. The District will transfer the permit provided all aspects of the permit except for the Permittee remain the same. All terms and conditions of the permit being transferred shall be binding on the transferee.

(4) Persons who apply to transfer a permit under subsection (1) above and who propose to change the source, use type or withdrawal or diversion quantities from those specified on the existing permit must also submit an application to modify the permit.

(5) A General Water Use Permit is hereby transferred by rule to the entity that has ownership or controlling interest of the point of water withdrawal or diversion.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.109, 373.118, 373.216, 373.219 FS. History–New 10-1-82, Amended 5-31-92, 11-1-93, 10-1-95, 1-4-10, 5-29-14.

40A-2.361 Renewal of Permits.

(1) Applications for renewal of Individual Water Use Permits shall be made no earlier than one year prior to the expiration of the permit. Application for a permit renewal is timely only if actually received by the District not later than the expiration date of the existing permit.

(2) All Individual Water Use Permit renewal applications shall be treated in the same manner as the initial application.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.216, 373.239 FS. History–New 10-1-82, Amended 1-5-86, 11-1-93, 10-1-95, 5-29-14.

40A-2.381 Limiting Conditions.

(1) The District shall impose upon any permit issued pursuant to this chapter such reasonable conditions as are necessary to: provide for the monitoring of the authorized use; provide for the use of reclaimed water; provide that the withdrawal and use of water is consistent with the policies of the District; prevent the level of the potentiometric surface of an aquifer, or the level of a surface water body, to be drawn below any minimum level established by the Board; and to provide that the authorized withdrawal is not harmful to the water resources of the District. Applicants shall be notified pursuant to Rule 40A-1.203, F.A.C., of any conditions imposed upon their permit.

(2) Every permit acquired under this Chapter shall include standard terms which describe the following information:

(a) Permittee's name and address;

(b) Permit number;

(c) Date permit application filed;

(d) Date permit granted;

(e) Permit expiration date;

(f) Water source classification(s);

(g) Water use classification;

(h) Property location;

(i) Authorized withdrawal or diversion amounts; and

(j) Withdrawal locations.

(3) Every permit acquired under this Chapter shall include the standard conditions in section 5.1 of the Water Use Permit Applicant's Handbook which impose certain limitations on the permitted water withdrawal.

(4) In addition to the standard terms and conditions, the District shall impose specific conditions as set forth in Rule 40A-2.802, F.A.C., and 5.2 of the Water Use Permit Applicant's Handbook, or other specific conditions appropriate to any specific use type or project.

(5) If water use reporting is required, the permittee shall submit the data required on the form specified in the permit. The District forms described in this section are hereby incorporated by reference and are available from the District's website (nwfwater.com) or from District offices. The form specified shall be either:

(a) Water Use/Pumpage Report Form, NWFWMD Form No. 166, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03865);

(b) Periodic Water Use Reporting Form, NWFWMD Form No. 173, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03872); or

(c) Water Use Summary Reporting Form, NWFWMD Form No. 172, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03871).

(6) If water use reporting is required, the permittee shall submit the data required on the form specified in the permit for accuracy verification. The District forms described in this section are hereby incorporated by reference and are available from the District's website (nwfwater.com) or from District offices. The form specified shall be completed on either one of the following forms at a frequency specified in the permit:

(a) Flow Meter Accuracy Water Use Report Form No. 170, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03869); or

(b) Alternative Method Flow Verification Water Use Permit Report Form No. 171, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03870).

(7) If authorized water use is for agricultural or landscape/recreation irrigation, the permittee shall submit the data required on the form specified in the permit. The District forms described in this section are hereby incorporated by reference and are available from the District's website (nwfwater.com) or from District offices. The form(s) specified shall be:

(a) Annual Crop Summary Water Use Permit Report Form No. 168, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03867); and/or

(b) Crop Protection Water Use Permit Report Form No. 169, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03868).

(8) If water quality reporting is required, the permittee shall submit the data required on the Water Quality Consumptive Use Permit Form No. 167, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03866) which is hereby incorporated by reference and available from the District's website (nwfwater.com) or from District offices.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.042, 373.216, 373.219, 373.223, 373.250 FS. History–New 1-5-86, Amended 5-31-92, 10-1-95, 1-4-10, 5-29-14.

40A-2.441 Temporary Permits.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.216, 373.219, 373.244 FS. History–New 10-1-82, Amended 1-5-86, 5-31-92, 10-1-95, 1-1-05, Repealed 5-29-14.

40A-2.501 Permit Classification.

Each permit shall be classified according to source and use. The use classification shall be as follows, and the listing does not establish any priority ranking of classes:

(1) Agricultural Use – the use of water associated with the irrigation of crops (including biofuel), greenhouse and nursery products, sod, forage, and pasture and non-irrigation uses associated with freeze protection, livestock and other domestic animals, aquaculture, and other uses associated with agricultural operations.

(2) Commercial Use – The self-supplied use of water (indoor and outdoor) associated with the production of goods or provisions of services by a commercial establishment. Commercial establishments include general businesses, office complexes, commercial cooling and heating, beverage processing plants, food processing, restaurants, gas stations, hotels, car washes, laundry facilities and the use of water at zoos, theme parks, waterslides, and attractions.

(3) Dewatering Use – the removal of water to control surface or groundwater when performing activities such as construction or excavation.

(4) Diversion and Impoundment – The diversion or extraction of surface water into impoundments and delivery systems designed for such purposes as maintaining structural integrity, maintaining control elevations for groundwater recharge, and supplying water to meet the reasonable – beneficial demands of secondary uses.

(5) Industrial Use – The use of water (indoor and outdoor) associated with the production of goods or provisions of services by a self-supplied industrial facility. Industrial uses include manufacturing plants, chemical processing plants, power generation plants, and other industrial facilities.

(6) Institutional Use – The use of water (indoor and outdoor) associated with the production of goods or provisions of services by a self-supplied institutional establishment which includes hospitals, group home / assisted living facilities, churches, prisons, schools, universities and military bases.

(7) Landscape Irrigation Use – The use of water for landscape irrigation including parks, common areas, large lawns and landscaped areas, cemeteries, medians and public right-of-ways.

(8) Mining Use – The use of water associated with the extraction, transport and processing of subsurface materials and minerals.

(9) Other Use – The use of water for aquifer remediation; environmental augmentation; cleaning and maintenance; and other purposes not described in Rule 40A-2.501 F.A.C.

(10) Public Supply Use – The use of water provided by any municipality, county, regional water supply authority, special district, public or privately owned water utility, multijurisdictional water supply authority, or other entity consistent with the Florida Safe Drinking Water Act, for human consumption and other purposes.

(11) Recreation Use – The use of water for the creation, maintenance and operation of recreational facilities such as golf courses, athletic fields, playgrounds; water-based recreation areas for hunting, fishing, boating, swimming, or for wildlife enhancement.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.171, 373.246 FS. History–New 10-1-82, Amended 1-5-86, 5-31-92, 11-1-93, 7-1-98, 5-29-14.

40A-2.511 Declaration of Water Shortage.

The Governing Board shall implement water shortage declarations pursuant to the provisions of Chapter 40A-21, F.A.C.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.175, 373.246 FS. History–New 10-1-82, Amended 1-5-86, 5-31-92.

40A-2.801 Declaration of Water Resource Caution Areas.

(1) The Governing Board is authorized to declare any portion of the District to be a Water Resource Caution Area. The Governing Board will consider the following criteria when determining whether to designate an area of the district a Water Resource Caution Area:

(a) Areas where fresh water resources are experiencing, or which are anticipated to experience within the next 20 years, significant or widespread reductions in water levels, salt water intrusion, mineralization, upconing of lower quality water, man induced contamination, or any other degradation;

(b) Areas experiencing, or which are anticipated to experience within the next 20 years, reductions in ground or surface water quantity or quality which adversely impacts existing legal users, or the environmental resources of the District, such as flora or fauna;

(c) Areas where existing water supply sources are not expected to be sufficient to meet projected demands for the next 20 years, or which will be required to use advanced water treatment technology or the importation of water to meet projected demands; and,

(d) Areas where Phase III, Extreme Water Shortages, or Phase IV, Critical Water Shortage, restrictions have been imposed on a frequent basis.

(2) Within a Water Resource Caution Area, the Board shall establish such permit thresholds, management and minimum levels, and limiting conditions as are necessary to monitor, manage, and control the use of water. The Board, as provided by Rule 40A-2.331, F.A.C., shall modify and condition any existing permit to provide for the protection of the water resources of the District.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.0421, 373.0361, 373.216, 373.219, 373.223, 373.246 FS. History–New 10-1-82, Amended 1-5-86, 8-1-89, 5-31-92, 11-1-93, 10-1-95, 5-29-14.

40A-2.802 Water Resource Caution Areas.

The Governing Board designates the following areas as Water Resource Caution Areas. Designated Water Resource Caution Areas within the District are identified in Figures 2-2 and 2-3.

(1) Santa Rosa, Okaloosa, and Walton Counties.

The District has determined that the coastal area of Santa Rosa, Okaloosa, and Walton counties has limited potable water resources, are experiencing increasing water use demands and significant reductions in groundwater levels, and will potentially have to use advanced treatment technology, or the importation of water to meet future demands. To address the expanding demands and continued depletion of the area's limited potable water resources, the Board hereby declares the area south of the Eglin Air Force Base in Santa Rosa, Okaloosa, and Walton counties, also the area extending south of SR-20 to the Bay County Line in Walton County, as a Water Resource Caution Area (See Figure 2-2). By means of this designation the following criteria are stipulated:

(a) An Individual Water Use Permit is required for all non-exempt groundwater withdrawals that are not granted a General Water Use Permit by rule in subsection 40A-2.061(6) or (7), F.A.C. The only exempt withdrawals are those designated in Rule 40A-2.051, F.A.C.;

(b) New and expanded uses of the Floridan Aquifer System for golf course, recreation, or landscape irrigation, or other non-potable uses, are determined not to be consistent with the public interest and are prohibited by the Board. However, the Governing Board shall consider the granting of an exemption to provide for the issuance of an Individual Water Use Permit if the following conditions are met:

1. A written exemption request is submitted as part of the permit application;

2. The use of reclaimed water is determined not to be economically, environmentally or technically feasible;

3. A commitment is provided by the applicant to utilize reclaimed water when determined feasible and to abandon and plug any Floridan Aquifer System well(s) at the time reclaimed water is utilized;

4. Hydrological data is submitted which demonstrates that no other source of ground or surface water can be utilized for the proposed use;

5. Water of the lowest acceptable quality available will be utilized for the proposed use;

6. Water conservation measures are identified that will be implemented at the time of authorization, and over the duration of the permit, to encourage and promote water conservation and efficiency in the use of the area's water resources (conservation measures shall specifically provide for the reduction of irrigation water uses when applicable);

7. An undue economic hardship will threaten the livelihood of the applicant if the exemption request is not granted or if the applicant has to obtain water from a public water supply system; and

8. The request is determined reasonable-beneficial, and in the public interest and will not interfere with any existing legal uses.

(c) As authorized by Section 373.219, F.S., to ensure water use is consistent with the overall objectives of the District, permits granted to public water supply utilities within the Water Resource Caution Area shall be conditioned to require the submittal of water conservation plans, programs, and measures which shall be evaluated on their effectiveness to reduce water use demand and promote the efficient use of the area's water supplies.

1. The plans, programs, and measures will be reviewed specifically for standards and implementation schedules intended to reduce annual average residential per capita water consumption to 110 gallons per day through such actions as adoption of water conservation-based rate structures, reduction of leaks to 10 percent or less of the water withdrawn, implementation of water conservation public education programs, etc.

2. Water conservation plans, programs, and measures developed by local governments operating water supply utilities will also be reviewed to determine if a Florida-friendly landscape ordinance meeting the requirements of Sections 373.185(2)(a)-(f), F.S., and an ordinance requiring the installation of a rain/moisture sensor cutoff device on automatic irrigation systems pursuant to Section 373.62, F.S., have been adopted.

3. Utilities operating wastewater treatment plants shall include in the plan an analysis of the economic, environmental, and technical feasibility of providing reclaimed water for reuse within five years and of providing total reuse of reclaimed water within 20 years.

(d) Public water supply systems shall be required to actively participate and aid in the implementation of the goals and plans of the Walton-Okaloosa-Santa Rosa Regional Utility Authority.

(e) Golf course and industrial users which withdraw water from the Floridan Aquifer System shall be required to develop, adopt, and implement water conservation plans and measures to encourage and promote water conservation and efficiency in the use of the area's water supplies, and to utilize reclaimed water if determined to be economically, environmentally, and technically feasible.

(2) Upper Telogia Creek Drainage Basin, Gadsden County.

The District has determined that areas of Gadsden County have experienced reductions in water supplies and have experienced continued competition for the available water resources. Water use within portions of the County, if not properly managed, has the potential of negatively impacting the water resources, the economic base, and the agricultural industry of the County; as well as, public supply and domestic well users. To provide for the comprehensive management of the water supplies within a portion of Gadsden County, the Board hereby declares the Upper Telogia Creek Drainage Basin located within Gadsden County, Florida, as determined by United States Geological Survey 7.5 Minute Topographic Maps named, "Gretna", "Sycamore," and "Mt. Pleasant", a Water Resource Caution Area (Figure 2-3). By means of this designation the following criteria are stipulated:

(a) An Individual Water Use Permit is required for all non-exempt groundwater withdrawals that are not granted a General Water Use Permit by rule in subsection 40A-2.061(5), F.A.C. The only exempt withdrawals are those designated by Rule 40A-2.051, F.A.C.;

(b) As authorized by Section 373.219, F.S., to ensure water use is consistent with the overall objectives of the District, permits granted to public water supply utilities within the Water Resource Caution Area shall be conditioned to require the submittal of water conservation plans, programs, and measures which shall be evaluated on their effectiveness to reduce water use demands and promote water reuse and the efficient use of the area's water supplies. Utilities which are presently treating wastewater, or which will treat wastewater in the future, shall include in the plan an analysis of the economic, environmental and technical feasibility of providing reclaimed water for reuse within five years, and of providing total reuse of reclaimed water within 20 years; and

(d) Golf course and industrial users which shall be required to develop, adopt, and implement water conservation plans and measures to encourage and promote water conservation and efficiency in the use of the area's water supplies, and to utilize reclaimed water if it is determined to be economically, environmentally, and technically feasible.

Rulemaking Authority 373.044, 373.171, 373.223 FS. Law Implemented 373.219, 373.223, 373.250 FS. History–New 8-1-89, Amended 5-31-92, 11-1-93, 10-1-95, 5-29-14.

40A-2.901 Forms.

(1) The following forms are used in the implementation of this chapter:

(a) Water Use Permit Application, Form No. 160, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03846), and incorporated by reference in Rule 40A-2.101, F.A.C.;

(b) Supplemental Form A – Agricultural Use, Form No. 160A, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03847), and incorporated by reference in Rule 40A-2.101, F.A.C.;

(c) Supplemental Form B – Industrial / Commercial Use, Form No. 160B, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03848), and incorporated by reference in Rule 40A-2.101, F.A.C.;

(d) Supplemental Form C – Landscape / Recreation Use, Form No. 160C, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03849), and incorporated by reference in Rule 40A-2.101, F.A.C.;

(e) Supplemental Form D – Mining / Dewatering Use, Form No. 160D, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03850), and incorporated by reference in Rule 40A-2.101, F.A.C.;

(f) Supplemental Form E – Public Supply Use, Form No. 160E, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03851), and incorporated by reference in Rule 40A-2.101, F.A.C.;

(g) Supplemental Form F – Other Use, Form No. 160F, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03852), and incorporated by reference in Rule 40A-2.101, F.A.C.;

(h) Supplemental Form G – Institutional Use, Form No. 160G, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03853), and incorporated by reference in Rule 40A-2.101, F.A.C.;

(i) Supplemental Form H – Diversion and Impoundment, Form No. 160H, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03854), and incorporated by reference in Rule 40A-2.101, F.A.C.;

(j) Water Use/Pumpage Water Use Permit Report Form No. 166, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03865), and incorporated by reference in Rule 40A-2.381, F.A.C.;

(k) Periodic Water Use Reporting Form, NWFWMD Form No. 173, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03872), and incorporated by reference in Rule 40A-2.381, F.A.C.;

(l) Water Use Summary Reporting Form, NWFWMD Form No. 172, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03871), and incorporated by reference in Rule 40A-2.381, F.A.C.;

(m) Flow Meter Accuracy Water Use Report, Form No. 170, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03869), and incorporated by reference in Rule 40A-2.381, F.A.C.;

(n) Alternative Method Flow Verification Water Use Permit Report, Form No. 171, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03870), and incorporated by reference in Rule 40A-2.381, F.A.C.;

(o) Annual Crop Summary Water Use Permit Report Form No. 168, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03867), and incorporated by reference in Rule 40A-2.381, F.A.C.;

(p) Crop Protection Water Use Permit Report Form No. 169, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03868), and incorporated by reference in Rule 40A-2.381, F.A.C.;

(q) If water quality reporting is required, the permittee shall submit the data required on the Water Quality Consumptive Use Permit Form No. 167, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03866), and incorporated by reference in Rule 40A-2.381, F.A.C.;

(r) Water Use Permit Letter Modification Request Form, Form No. 161, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03863), and incorporated by reference in Rule 40A-2.331, F.A.C.; and

(s) Water Use Permit Transfer Form, NWFWMD Form No. 163, effective May 29, 2014 (http://www.flrules.org/Gateway/reference.asp?No=Ref-03864), and incorporated by reference in Rule 40A-2.351, F.A.C.

(2) These forms are available from the District website (nwfwater.com) and from the District offices listed in subsection 40A-2.019(12), F.A.C.

Rulemaking Authority 373.044, 373.171 FS. Law Implemented 373.116, 373.219, 373.229 FS. History–New 10-1-82, Amended 1-5-86, 8-1-89, 5-31-92, 10-1-95, 7-1-98, 1-4-10, 10-20-13, 1-15-14, 5-29-14.

40A-2.902 Areal Boundary Maps for Water Use Permitting.

General areal boundaries for Water Resource Caution Areas and Areas of Resource Concern are established for the implementation of water use permitting pursuant to this Chapter and are indicated in Figure 2-1. These boundaries are depicted in specific detail for each county on general county highway maps. These maps are hereby incorporated by reference, and can be obtained from the District's website (nwfwater.com) or from District offices.

Resource Areas and Areas of Resource Concern are established for the implementation of water use permitting pursuant to this Chapter and are indicated in Figure 2-1. These boundaries are depicted in specific detail for each county on general county highway

maps. These maps are hereby incorporated by reference, and can be obtained from the District's website (nwfwater.com) or from District offices.

Rulemaking Authority 373.044, 373.171 FS. Law Implemented 373.216 FS. History–New 10-1-82, Amended 1-5-86, 5-4-87, 8-1-89, 5-31-92, 7-1-98, 1-1-05, 5-29-14.

40A-2.904 Areal Boundary Maps for Water Resource Caution Areas.

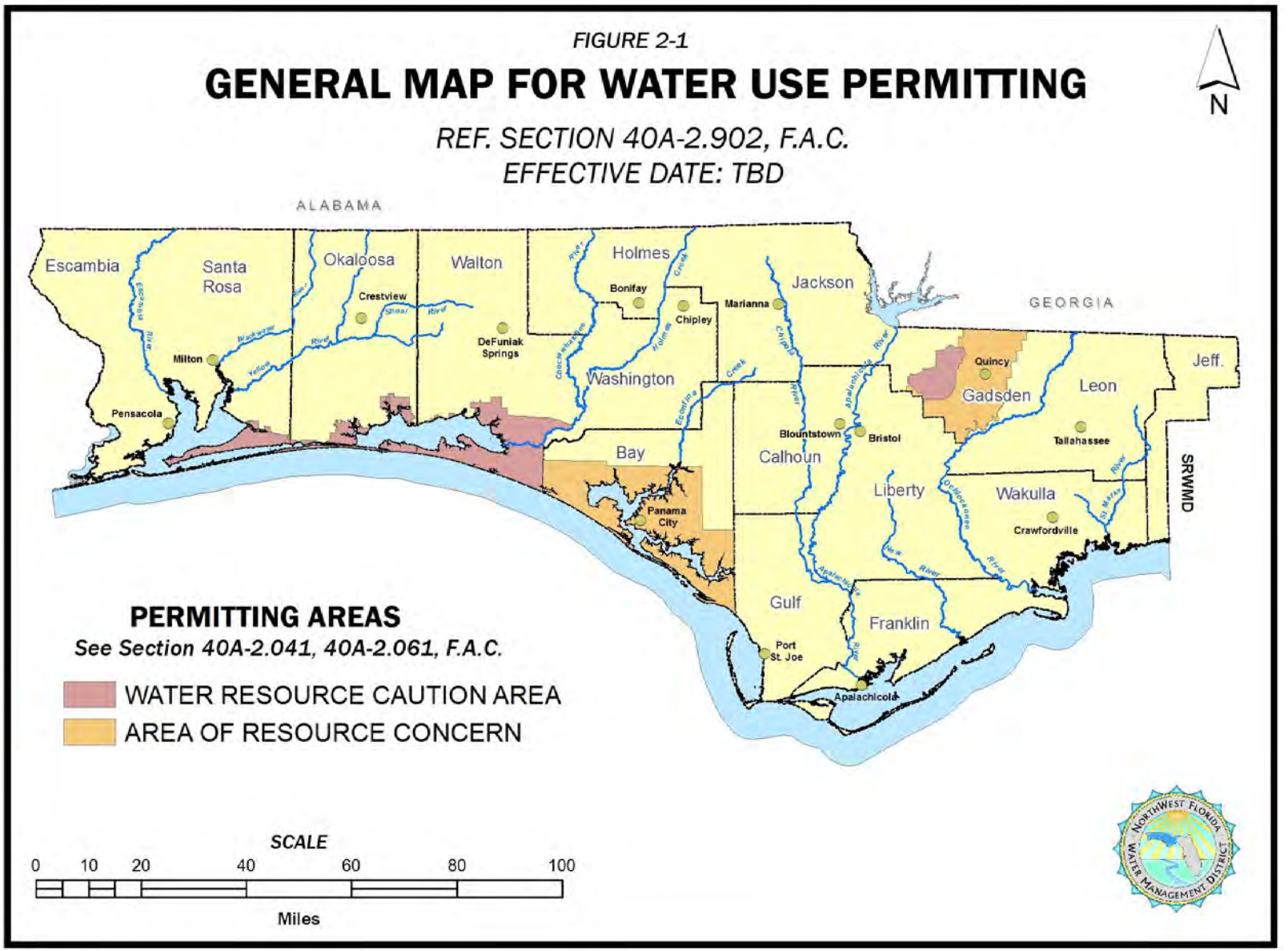
(1) Areal boundaries for the Santa Rosa, Okaloosa, and Walton County Water Resource Caution Area encompassing the area south of Eglin Air Force Base in Santa Rosa (http://www.flrules.org/Gateway/reference.asp?No=Ref-03875), Okaloosa (http://www.flrules.org/Gateway/reference.asp?No=Ref-03874), and Walton County (http://www.flrules.org/Gateway/reference.asp?No=Ref-03877), also the area extending south of SR-20 in Walton County to the Bay County (http://www.flrules.org/Gateway/reference.asp?No=Ref-03876) Line are established for the implementation of water use permitting pursuant to this Chapter and are indicated in Figure 2-2. These boundaries are depicted in specific detail for each of these counties on general county highway maps. These maps are hereby incorporated by reference and can be obtained from the District's website (nwfwater.com) or from District offices.

(2) Areal boundaries for the Upper Telogia Creek Drainage Basin Water Resource Caution Area are established for the implementation of water use permitting pursuant to this Chapter and are indicated in Figure 2-3. These boundaries are depicted in detail on the Gadsden County (http://www.flrules.org/Gateway/reference.asp?No=Ref-03873) general county highway map. This map is hereby incorporated by reference and can be obtained from the District's website (nwfwater.com) or from District offices.

FIGURE 2-1

GENERAL MAP FOR WATER USE PERMITTING

REF. SECTION 40A-2.902, F.A.C.
EFFECTIVE DATE: TBD



ma

FIGURE 2-2

WATER RESOURCE CAUTION AREA WITHIN REGION II IN SANTA ROSA, OKALOOSA AND WALTON COUNTIES

REF. SECTION 40A-2.802 (1), F.A.C.

ESTABLISHED AUGUST 1, 1989

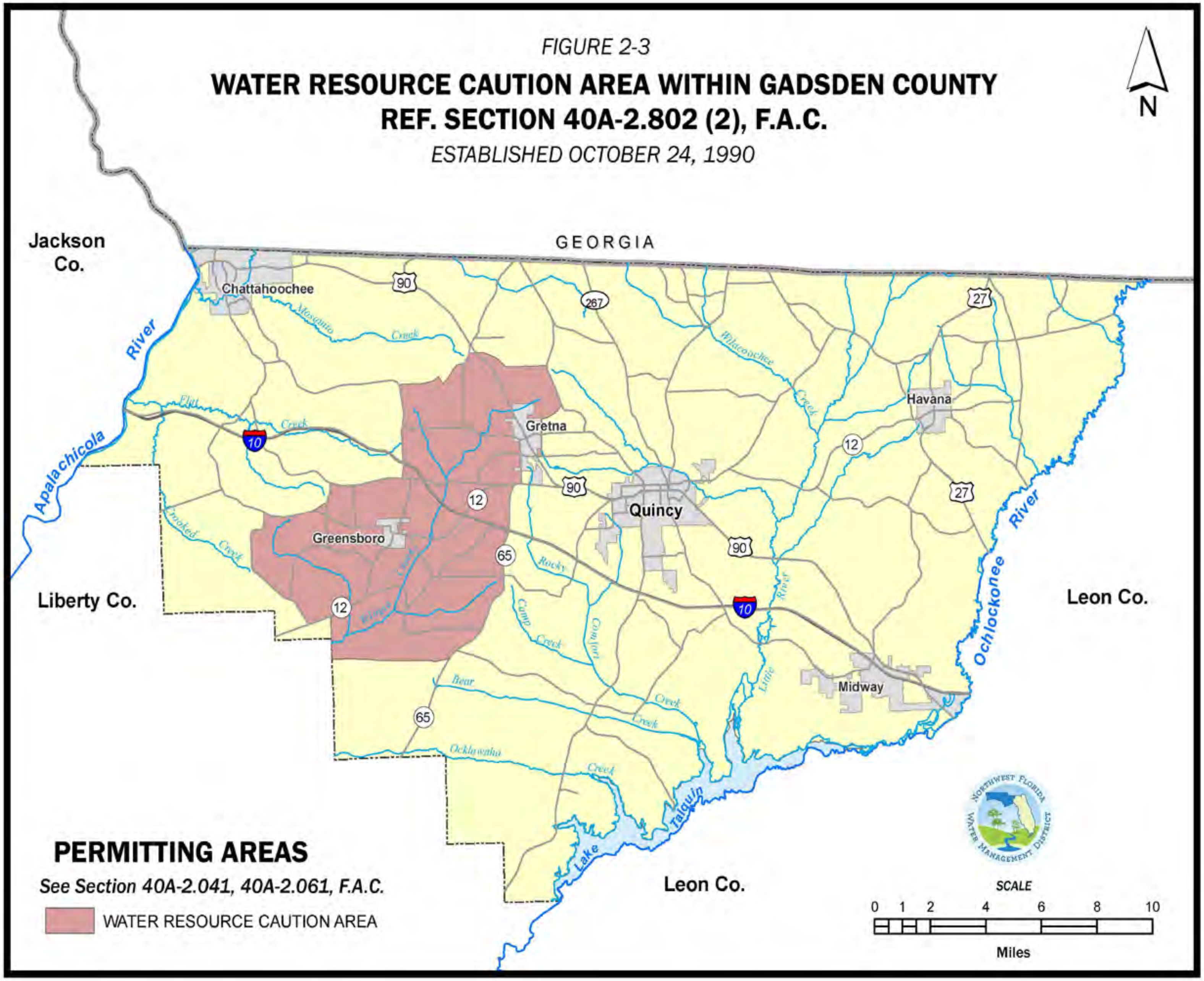


FIGURE 2-3
WATER RESOURCE CAUTION AREA WITHIN GADSDEN COUNTY
REF. SECTION 40A-2.802 (2), F.A.C.
ESTABLISHED OCTOBER 24, 1990
N
GEORGIA
Jackson Co.
Liberty Co.
Leon Co.
Leon Co.
Chattahoochee
Gretna
Greensboro
Quincy
Havana
Midway
Apalachicola River
Ochlockonee River
Lake Talquin
Mosquito Creek
Flat Creek
Crooked Creek
Rocky
Camp Creek
Comfort
Bear Creek
Ocklawaha Creek
Willacoochee Creek
Little River
10
12
27
65
90
267
PERMITTING AREAS
See Section 40A-2.041, 40A-2.061, F.A.C.
WATER RESOURCE CAUTION AREA
SCALE
0 1 2 4 6 8 10
Miles

Rulemaking Authority 373.044, 373.171 FS. Law Implemented 373.216 FS. History–New 8-1-89, Amended 5-31-92, 11-1-93, 5-29-14.

CHAPTER 40A-3
REGULATION OF WELLS (Formerly 16G-3)

40A-3.011 Policy and Purpose.

(1) The purpose of Chapter 40A-3, F.A.C., is to implement the duties and responsibilities of the District under Part III, Chapter 373, Florida Statutes, and those responsibilities and duties delegated to the District by the Department of Environmental Protection relative to regulating the location, construction, repair, or abandonment of wells, and the licensing of water well contractors. It is the policy of the Board that these rules are a reasonable necessity to insure the protection and management of water resources and the health, safety, and general welfare of the people of this District.

(2) The rules in this chapter implement the regulation of wells and licensing of water well contractors through the following parts:

(a) Part I of this chapter establishes a permitting system for the location, construction, repair or abandonment of wells.

(b) Part II of this chapter establishes the minimum standards for the construction, repair, or abandonment of wells.

(c) Part IV of this chapter provides for suspension and revocation of water well contractor licenses.

(d) Part V of this chapter provides for enforcement and penalties.

(e) Rules relating to water well contractor licensing are found in Chapter 62-531, F.A.C., adopted by reference in Rule 40A-3.037, F.A.C., of these rules.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.333, 373.337 FS. Law Implemented 373.306, 373.308, 373.309, 373.313, 373.316, 373.323(2), 373.324, 373.326, 373.329, 373.333, 373.342 FS. History–New 4-14-80, Amended 2-1-82, 10-1-84, 1-9-86, Formerly 16G-3.01, Amended 8-1-89.

40A-3.021 Definitions.

The following words and phrases, when used in these rules, shall have the following meanings, except where the context clearly indicates a different meaning:

(1) "Abandonment" means the act, whether intentional or unintentional, of allowing a well to attain the condition of an abandoned well.

(2) "Abandoned Well" means a well the use of which has been permanently discontinued. Any well shall be deemed abandoned which is in such a state of disrepair, as determined by a representative of the District, that continued use for the purpose of obtaining ground water or disposing of water or liquid wastes is impracticable.

(3) "Aesthetic Use" means the use of water for fountains, waterfalls, and landscape lakes and ponds where such uses are ornamental and decorative.

(4) "Agricultural Irrigation Use" means the use of water for the commercial production of crops or the growing of farm products, including vegetables, citrus, pasture, nursery stock, turf grass, and sod.

(5) "Annulus" or "Annular Space" means any artificially created void existing between a well casing or liner pipe and a borehole wall.

(6) "Aquacultural Use" includes the use of water for spawning, cultivating, harvesting, or marketing of fin-fish, shellfish, crustaceans, frogs, turtles, and other aquatic organisms that have a sport or other economic value.

(7) "Aquifer" means a subsurface geologic unit capable of yielding significant quantities of water to wells and springs.

(8) "Aquifer Restoration Well" means a well used for the withdrawal of water for the purpose of recovering contaminant(s) to restore or improve the quality of the water within an aquifer.

(9) "Artificial Recharge" means the intentional introduction of water into any underground formation by means of a recharge or injection well.

(10) "Artificial Recharge Facility" means any facility constructed for the intentional introduction of water into any underground formation.

(11) "Board" means the Governing Board of the Northwest Florida Water Management District.

(12) "Certified Receipt" means the date and time an application for a permit is stamped as received in the District office.

(13) "Commercial Use" includes small businesses and facilities in which water is the prime ingredient of the service rendered, such as a car wash and laundromat.

(14) "Contractor" means any person licensed in accordance with Chapter 62-531, F.A.C., and engaged in the business of construction, repair, or abandonment of wells.

(15) "Construction of Wells" means all parts and acts necessary to obtain ground water by wells, including the location and excavation of the wells, but excluding the installation of pumps and pumping equipment.

(16) "Department" means the Department of Environmental Protection (DEP) or its successor agency or agencies.

(17) "Domestic Self Supply Use" means the use of water for household purposes such as drinking, bathing, cooking, sanitation, or cleaning, which occurs in a private residence, and includes no more than one rental residence or no more than four nonrental residences served by one well.

(18) "Dewatering Use" means the removal of water from a specific area to facilitate mining or construction.

(19) "District" means the Northwest Florida Water Management District operating under the authority of Chapter 373, Florida Statutes.

(20) "Diversion and Impoundment into Non-District Facilities Use" means the diversion or extraction of water into non-District impoundments and delivery systems designed for such purposes as maintaining structural integrity, providing agricultural water and other non-recreational, non-aesthetic use.

(21) "Drive Shoe" means any device specifically designed, fabricated, and installed to protect the bottom end of a water well casing or liner pipe from collapse or other damage while the casing or liner pipe is being driven into place in a well.

(22) "Essential Use" includes the use of water strictly for fire-fighting purposes, health and medical purposes, and the use of water to satisfy federal, state, or local public health and safety requirements.

(23) "Freeze Protection" includes the periodic and infrequent use of water to protect agricultural and nursery crops from permanent damage due to low temperatures.

(24) "Golf Course Irrigation Use" is the use of water to irrigate golf courses.

(25) "Grout" means a mixture consisting of water and Portland cement (American Concrete Institute type I or American

Concrete Institute type III), sand and Portland cement mixed at three parts sand to one part cement by weight, or other approved types of cement and acceptable amounts of those additives approved by the District for use in cement grouts. The use of alternative methods or materials shall not cause degradation of the water resource. Grout composition shall not exceed six (6) gallons of water per cubic foot or sack of cement.

(26) "Heating or Cooling Use" means the use of water for heating, air-conditioning, or other cooling uses.

(27) "Industrial Use" includes those many uses wherein the water serves the purposes of manufacturing, commerce, trade or industry.

(28) "Injection Well" means a well for the express purpose of introducing under pressure any water into underground formations. This includes return wells for air conditioning systems and injection of water under pressure into underground formations for the possible purpose of storage and later recovery.

(29) "Landscape Irrigation Use" is the outside watering of plants, shrubs, grass, trees, and other such flora in landscapes surrounding homes, non-commercial house-hold gardens, industrial buildings, parks, recreational areas, cemeteries, public right-of-ways, and medians.

(30) "Livestock and Other Animals Use" includes water for drinking by or washing of livestock, including zoo animals.

(31) "Mining Use" includes use wherein the water is applied for the extraction, transportation, or processing of minerals.

(32) "Navigation Use" means water discharged from ground or surface sources either to tide water or to downstream lakes or reaches of rivers or canals for the purpose of permitting or protecting boating activity.

(33) "Nursery Irrigation Use" (Non agricultural) is the use of water on premises on or in which nursery stock is held for sale, distribution or is sold or reshipped. This term does not apply to water used for production of nursery stock.

(34) "Other Outside Use" means the use of water outdoors for dust control, maintenance, cleaning, and washing of structures and mobile equipment, including automobiles and the washing of streets, driveways, sidewalks, and similar areas.

(35) "Limited Use Public Supply" means the use of water in public water systems not covered under the definitions of Domestic Self Supply use or Public Water Supply Use of this section, and which is further defined as either:

(a) "Limited Use Commercial Public Water Systems Use" means the use of water by one or more nonresidential establishments; or

(b) "Limited Use Community Public Water System Use" means the use of water by five or more private residences or two or more rental residences.

(36) "Perishable Food Processing Use" includes industrial uses involving the processing of perishable food.

(37) "Power Production Use" includes use for steam or co-generation and the use of water for cooling and for replenishment of cooling reservoirs.

(38) "Public Water Supply Use" is the use of water as defined by the Florida Safe Drinking Water Act, and means the use of water by a Public Water System.

(39) "Public Water System" means a system for supplying water for human consumption, if such system has at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A Community Water System is a public water system which has at least 15 service connections used by year-round residents or which regularly serves at least 25 year-round residents. A non-Community Water System is a public water system which serves at least 25 individuals daily at least 60 days out of the year but the individuals served are not year-round residents and may be transients.

(40) "Recharge Well" means a well for the express purpose of introducing any waters into any underground formation. This definition shall include drainage or connector wells.

(a) "Drainage Well" generally describes a well for the express purpose of disposing of excess surface waters by gravity flow into any underground formation.

(b) "Connector Well" is a well for the express purpose of draining one aquifer and allowing this water to recharge another aquifer (interaquifer transfer).

(41) "Recreation Area Irrigation Use" is the use of water to irrigate recreational areas such as soccer, baseball, and football fields or playgrounds.

(42) "Repair" means any action which involves the physical alteration or replacement of any part of a well, but does not include the alteration or replacement of any portion of a well which is above ground surface.

(43) "Sanitation Use" includes supplying water for toilet facilities, and for cleaning, when the use is in a non-residence. This use does not include drinking water or water used in cooking.

(44) “Soil Flooding Use” means the use of water for raising of water levels on agricultural lands for purposes not directly related to such purposes as crop growth, soil preservation, crop harvesting, and pest control.

(45) “Test Well” or “Test Hole” is a well constructed for temporary use, designed to allow specific geological or groundwater parameters to be examined prior to the construction of a permanent well.

(46) “Water-Based Recreation Use” is the use of water for public or private swimming and wading pools and other water-oriented recreation such as fishing, boating, and swimming, and including water slides.

(47) “Well” means any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location, acquisition, development, or artificial recharge of ground water, but such term does not include any well for the purpose of obtaining or for prospecting for oil, natural gas, minerals, or products of mining or quarrying, for inserting media to dispose of oil brines or to repressure oil or natural gas-bearing formations, or for storing petroleum, natural gas, or other products; or for temporary dewatering of subsurface formations for mining, quarrying, or construction purposes.

(48) “Well Completion” means a well that meets all construction standards specified in Part II.

(49) “Well Seal” means an arrangement or device that prevents contaminants from entering the well at the upper terminal and that is approved by the District as satisfying the requirements of Rule 40A-3.521, F.A.C., of this rule.

(50) “Onsite Sewage Disposal System (OSDS)” means a sewage treatment and disposal facility, which may contain a standard subsurface, filled, or mound drainfield system, an aerobic treatment unit, a graywater system tank, a laundry wastewater system tank, a septic tank, a grease interceptor, a dosing tank, a solids or an effluent pump, alternative system or experimental system.

(51) “Sanitary Hazard” means a physical condition which involves or affects any part of a drinking water system or the raw water source, and that creates an imminent or potentially serious risk to the health of any person who consumes water from that system.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.303, 373.306, 373.308, 373.309, 373.313, 373.316, 373.319, 373.323(2) FS. History–New 4-14-80, Amended 2-1-82, 3-29-84, 10-1-84, 1-9-86, Formerly 16G-3.02, Amended 4-5-88, 8-1-89, 12-1-90, 11-1-92, 11-1-93, 11-1-95, 7-1-98.

40A-3.037 Water Well Contractor Licensing.

(1) Chapter 62-531, F.A.C., which requires the licensing of water well contractors, is hereby adopted by reference and made part of this rule. The licensing program shall be administered and enforced by the District under the authority delegated to it by the Department of Environmental Protection by Order dated July 11, 1984.

(2) Unlicensed persons violating the provisions of Chapter 373, Florida Statutes, or these rules, or orders of the District are subject to the disciplinary procedures prescribed in Section 373.323, Florida Statutes.

Rulemaking Authority 373.044, 373.113, 373.323, 373.337 FS. Law Implemented 373.323 FS. History–New 10-1-84, Amended 8-1-89.

40A-3.038 Violations of Licensing Requirements.

Rulemaking Authority 373.044, 373.113, 373.171, 373.323, 373.337 FS. Law Implemented 373.323, 373.333, 373.336 FS. History–New 1-9-86, Amended 8-1-89, 12-1-90, 11-1-92, Repealed by Section 3, Chapter 2012-31, Laws of Florida, 5-27-12.

40A-3.041 Permits Required.

(1) Unless expressly exempted by Statute or District rule, a permit must be obtained from the District prior to construction, repair, or abandonment of a well and the well must be constructed, repaired, or abandoned by a licensed water well contractor. Any potable water well proposed within an area of ground water contamination, as delineated by the Department, will be permitted pursuant to Chapter 62-524, F.A.C.

(2) A permit to construct, repair, modify or abandon any water well meeting the provisions of Chapter 373, Part III, Florida Statutes, and Chapter 40A-3, F.A.C., will be issued by the Executive Director. However, if a permit request is considered for denial or a written objection is filed to the issuance of a permit, or the application is for the construction of an artificial recharge facility, then the application shall be processed in accordance with the applicable provisions of Rule 40A-1.203, F.A.C., and acted upon by the District’s Governing Board.

(3) Permit applications shall be filed with the District on NWFWMD Form No. 10, revised 11/1/95, hereby incorporated by reference. The required fee shall be submitted with the permit application. Applications to construct an artificial recharge facility

shall be accompanied by a completed copy of the appropriate artificial recharge application required pursuant to Chapter 62-528, F.A.C.

(4) Permits for water use must be obtained under the provisions of Chapter 40A-2, F.A.C. A well shall not be constructed until an Individual water use permit is granted, if a water use permit is required.

(5) Additional information may be required such as: geophysical logs, geologic samples and logs, a list of proposed construction methods, a description of proposed pump tests, a list of well specifications, a description of the proposed water quality monitoring systems, and a description of the proposed total monitoring system.

(6) Receipt of the permit will constitute permission to begin well construction, repair, or abandonment.

(7) The District permit for a public water supply well does not constitute approval of the public water system. A separate application must be submitted to the Department in accordance with subsection 62-555.102(2), F.A.C., to obtain a permit to construct or alter a public water supply system.

(8) The permit shall be available at the site of the well during construction, repair, or abandonment.

(9) Any permittee who desires to change the location of a well or otherwise amend a permit shall apply to the District for an amendment. No charge shall be made to amend the permit. As a condition to approving any amendment, the District may require remedial action to bring any work accomplished under the original permit into compliance with provisions of this chapter.

(10) A repair permit is not necessary if remedial work is performed on a well before the expiration date of the construction permit; however, an updated completion report should be filed with the District if the well depth or casing depth is increased.

(11) Permits will not be granted after a water well has been constructed, repaired, or abandoned, except in the case of subsection (12) below. As a condition to the enforcement action taken, a contractor will be required to submit a permit application and completion report for the District's records.

(12) A permit to abandon is required for any well which was constructed and found unsuitable for use. If the contractor is in the drilling process and needs to abandon, he may perform the work prior to obtaining a permit; however, the permit must be obtained by telephone or in person no later than 24 hours following the well abandonment. The hole must be properly abandoned (plugged) according to the standards of subsection 40A-3.531(4), Florida Administrative Code.

(13) If a well unsuitable for use is abandoned (plugged), and the contractor plans to construct a new well, he may use the construction permit granted for the first well, provided that it has not expired.

(14) Receipt of a permit from the District does not alleviate the responsibility of the applicant to obtain other permits that may be necessary from local, state, or federal agencies. If more stringent rules concerning construction standards for water wells are promulgated by local permitting authorities, those standards shall apply.

(15) A permit to abandon a test well or test hole is required to be obtained by the property owner, through a licensed water well contractor, within six (6) months from the date of well construction permit issuance. However, if the test well or test hole was constructed to permanent well standards and meets all applicable setback requirements, the well may be converted to permanent well status by obtaining an additional construction permit for the new permanent well type. A new permit application fee must also be submitted in accordance with the proposed permanent well type.

Rulemaking Authority 373.044, 373.113, 373.171, 373.337 FS. Law Implemented 373.106, 373.109, 373.306, 373.308, 373.309, 373.313, 373.314, 373.316, 373.337, 373.342, FS. History–New 4-14-80, Amended 4-13-81, 2-1-82, 10-7-82, 3-29-84, 1-9-86, Formerly 16G-3.04, 16G-3.11, Amended 8-1-89, 12-1-90, 2-14-91, 11-1-95, 7-1-98.

40A-3.051 Exemptions.

(1) A permit is not required prior to the construction, repair, or abandonment of any well exempted by subsection 373.303(7) and Section 373.326, Florida Statutes (any well for the purpose of obtaining or prospecting for oil, natural gas, minerals, or products of mining or quarrying; wells for inserting media to dispose of oil brines, or to repressure oil or natural gas-bearing formations; wells for storing petroleum or natural gas or other products; or wells used for temporary dewatering for construction purposes).

(2) When the District finds that compliance with all requirements of this chapter would result in undue hardship, supported by information which demonstrates that the intent and purpose of the rule will not be impaired, an exemption from any one or more such requirements shall be granted by the District to the extent necessary to ameliorate such undue hardship. Such information may include water quality sampling or other reasonable information or action deemed necessary to assure the well will not adversely impact the water resource. The request for an exemption must be submitted in writing and detail the reasons why compliance with

the requirements of this chapter will create a hardship.

(3) A water well contractor license is not required for a homeowner when he plans to construct a well two (2) inches or less inside diameter on his own or leased property, intended for use only at a single family house which is his residence or intended for use only for farming purposes on his farm, and when the waters to be produced are not intended for use by the public or any residence other than his own. However, the well construction must meet all applicable standards of Part II of these rules, and the requirements for a Consumptive Use Permit.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.303, 373.306, 373.308, 373.309, 373.313, 373.316, 373.326 FS. History–New 4-14-80, Amended 2-1-82, 5-17-83, 3-29-84, 1-9-86, Formerly 16G-3.05, 16G-3.12, Amended 8-1-89, 12-1-90, 11-1-92, 7-1-98.

40A-3.201 Permit Application Fees.

(1) There shall be an application fee according to the following schedule, unless the well is a potable well within a delineated area as established by the Department, pursuant to Chapter 62-524, Florida Administrative Code:

	OUTSIDE DIAMETER OF CASING	FEE*
Public Supply Wells, Construction and Repair	All Diameters	$250.00
Limited Use Public Supply Wells, Construction and Repair	All Diameters	$200.00
All Other Wells, Construction and Repair, Not Listed Above	6 Inches and larger Diameter	$100.00
All Other Wells, Construction and Repair, Not Listed Above	4 Inch Diameter, but less than 6 Inch Diameter	$50.00
All Other Wells, Construction and Repair, Not Listed Above	Less than 4 Inch Diameter	$35.00
Monitor Wells	All Diameters	$30.00
Well Abandonment	All Diameters	$10.00
Emergency Telephone Authorization – Added to Regular Permit Fee	All Diameters	$25.00
Exemption (variance) Added to Regular Permit Fee	6 Inches and Larger	$150.00
	Less Than 6 Inches	$50.00

(2) There shall be an application fee according to the following schedule, for those potable wells constructed within an area of groundwater contamination, as delineated by the Department pursuant to Chapter 62-524, Florida Administrative Code:

	OUTSIDE DIAMETER OF CASING	FEE*
Public and Limited Use Public Supply Wells	All Diameters	$500.00
Potable Wells Serving Single Family Residences	All Diameters	$100.00
Exemption (variance) Added to Regular Permit Fee	6 Inches and Larger	$150.00
	Less Than 6 Inches	$50.00

*All permit application fees shall be non-refundable.

Note: The Emergency Telephone Authorization Fee and Exemption Fee are in addition to the standard permit fees listed above, and shall accompany applications for permits.

Rulemaking Authority 373.044, 373.109, 373.113, 373.171, 373.337 FS. Law Implemented 373.109, 373.309 FS. History–New 4-14-80, Amended

6-11-80, 4-13-81, 2-1-82, 5-17-83, 1-9-86, Formerly 16G-3.20, 16G-3.13, Amended 8-1-89, 1-1-90, 12-1-90, 2-14-91, 11-1-93.

40A-3.301 Conditions for Issuance of Permits.

(1) The District shall complete action upon any permit application within fourteen (14) days after receipt of a complete application, except in the case of water wells constructed for public water supply systems as defined in Rule 62-532.200(23), F.A.C., and wells constructed for the artificial recharge of water, wells requiring an Individual Water Use Permit under provisions of Chapter 40A-2, F.A.C., in which case permit action shall be completed within 90 days of receipt of a complete application for the construction of an artificial recharge well or Chapter 40A-2, F.A.C., application.

(2) The issuance of a permit is dependent upon:

(a) The application being accompanied by the required fee, and containing the information required on NWFWMD Form No. 10. An application will be deemed incomplete if any portion of the application form is left blank or if the required sketch is illegible, does not provide the means to locate the proposed well, or is not consistent with the land coordinates provided in the application.

(b) The proposed construction, repair, or abandonment being in accordance with applicable law, rules, and orders.

(c) The work being done for a purpose and in a manner which is consistent with generally accepted engineering, hydrologic, and hydrogeologic practices.

(d) Whether the construction of the well will adversely affect the ground water resources.

(e) Whether the proposed well's proximity to an area of ground water contamination delineated under the provisions of Chapter 62-524, F.A.C., may adversely affect the ground water resources or present a threat to the health, safety, and welfare of individuals who, through ingestion, inhalation, or dermal absorption may be exposed to ground water contamination.

(f) Whether the Governing Board has approved the issuance of an Individual Water Use permit or the construction of an artificial recharge well, if applicable.

(3) A permit may be granted with certain conditions or restrictions, such as:

(a) Geologic samples required;

(b) Geophysical logs required;

(c) Pumping test required;

(d) Borehole diameter restricted;

(e) Total depth restricted;

(f) Length of casing specified;

(g) Capacity of pump restricted;

(h) Water use permit required;

(i) Grouting inspection required;

(j) Grout specified;

(k) Water quality sampling required;

(l) Water Treatment Systems (including filters);

(m) In areas delineated under the provisions of Chapter 62-524, F.A.C., a water well construction permit shall not be issued unless the well is constructed to criteria intended to protect the water resources from further contamination and the health, safety, and welfare of individuals who, through ingestion, inhalation, or dermal absorption may be exposed to ground water contamination. This criteria shall include stipulations on any of the following items: casing depth, construction method, well depth, water quality sampling, grout specifications, the installation of a water treatment system such as a filter and setback distance from a specific known source of contamination;

(n) Other such reasonable conditions as are necessary to assure that the well will comply with the requirements of Chapter 373, Florida Statutes, and will not adversely impact the water resources of the District.

(4) If the permit is obtained by the owner, the permit will be granted with the condition that the permit document be signed by the licensed water well contractor who will perform the work and return the permit to the District prior to construction, repair, or abandonment.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.109, 373.306, 373.308, 373.309, 373.313, 373.323, FS. History–New 4-14-80, Amended 2-1-82, 10-7-82, 5-17-83, 3-29-84, 1-9-86, Formerly 16G-3.30, 16G-3.14, Amended 8-1-89, 11-1-92, 11-1-95, 7-1-98.

40A-3.321 Duration of Permits.

All permits shall be valid for a period of ninety (90) days. If construction, repair or abandonment is not completed within that time, the District shall extend the permit for a period not to exceed ninety (90) days provided the conditions of the original permit application have not changed. Public water supply well permits may be renewed for a period of up to one (1) year from the date of permit issuance (in increments of ninety days per renewal request only). The District must receive a written request for an extension from the permittee or permittee's agent before the original permit expires.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.308, 373.309 FS. History–New 1-9-86, Formerly 40A-3.041, Amended 8-10-87, 8-1-89, 12-1-90, 11-1-95.

40A-3.341 Disapproval of Wells.

(1) The District may disapprove any water well or abandoned well if the District finds, after inspection, that the well does not comply with the provisions of this chapter.

(2) The District may disapprove any well if the well is determined not to be suitable for the intended use identified in the application submitted to the District or if the well represents a threat to the water resources, or if the well is determined by the Department of Environmental Protection or the Department of Health and Rehabilitative Services to pose a threat to the health, safety, or welfare of the user.

(3) No well which has been disapproved may be used until it has been brought into compliance with this chapter. A well that cannot be brought into compliance with the District's rules shall be abandoned as required by subsection 40A-3.531(4), F.A.C.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.306, 373.308, 373.309, 373.319 FS. History–New 4-14-80, Amended 4-13-81, 2-1-82, 10-1-84, Formerly 16G-3.34, 16G-3.18, Amended 8-1-89, 7-1-98.

40A-3.342 Permit Denial.

(1) The District shall issue a notice of Intent to Deny whenever it determines that an application for a permit under Rule 40A-3.041, F.A.C., fails to meet the requirements of Chapter 373, Florida Statutes, or Rule 40A-3, F.A.C., or any rule, order, or standard adopted pursuant thereto.

(2) The Notice of Intent to Deny shall:

(a) State the grounds for denial;

(b) Give the date of the Governing Board meeting at which the recommendation for denial shall be presented according to the procedures set forth in subsection 40A-3.342(3), F.A.C.; and

(c) Be served in writing upon the contractor and owner at their last known addresses by registered or certified mail.

(3) The Governing Board shall be presented with a recommendation for denial of a permit application at the first regularly scheduled Board meeting following the determination that an application for a permit under Rule 40A-3.041, F.A.C., fails to meet the requirements of Chapter 373, Florida Statutes, or Chapter 40A-3, F.A.C., or any rule, order, or standard adopted pursuant thereto. At that time pertinent facts concerning the basis for denial shall be presented, and the contractor and owner will have an opportunity to present pertinent information. The Governing Board shall then decide to:

(a) Grant a permit to construct, repair, or abandon a water well as specified in the application;

(b) Grant a permit as in (a) above except that certain conditions or restrictions authorized by law are imposed; or,

(c) Deny a permit, stating the reason for such denial.

(4) The District shall notify the contractor and owner of final Board action described in subsection 40A-3.342(3), F.A.C., within fourteen (14) days after the action. The Notice of Denial shall:

(a) State the grounds for denial; and

(b) Be served in writing upon the contractor and owner at their last known addresses by registered or certified mail.

(5) Any person receiving a denial may request a hearing by filing a written petition with the District within 21 days of the mailing of the notice.

Rulemaking Authority 373.044, 373.113 FS. Law Implemented 373.306, 373.313 FS. History–New 4-14-80, Amended 2-1-82, 1-9-86, Formerly

16G-3.17, 16G-3.31, Amended 4-5-88, 11-1-92, 7-1-98.

40A-3.411 Completion Reports.

(1) Within thirty (30) days after the expiration of a permit, a well completion report shall be filed with the District on the forms provided by the District and in accordance with the instructions provided thereon.

(2) If no work is performed or if the well is not completed, a report shall be filed within thirty (30) days of the expiration of the permit stating that no well construction was performed under the permit or outlining the status of the incomplete well.

(3) NWFWMD Form 114 shall be used to report the completion of construction, repair, or abandonment of any well within District jurisdiction.

(4) The water well contractor shall provide the well owner a copy of the well completion report.

(5) The information filed as a part of the completion report shall be truthful and accurate in providing the specifications and characteristics of the constructed well. (See subsection 40A-3.901(3), F.A.C.)

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.308, 373.309, 373.313 FS. History–New 4-14-80, Amended 5-17-83, 1-9-86, Formerly 16G-3.41, 16G-3.15, Amended 8-1-89, 11-1-95.

40A-3.451 Emergency Authorization.

(1) Permission to begin construction, repair, or abandonment of any well may be applied for by telephone when conditions exist which would justify such a request. The District may grant such permits at its discretion. However, a serious set of unforeseen circumstances must exist to create an emergency. Mere carelessness, lack of planning on the part of the applicant (the owner or the contractor for the owner) or a desire to expedite the required work shall not be sufficient grounds to warrant the granting of an emergency authorization.

(2) Emergency permits shall be obtained from the District Headquarters only.

(3) Emergency permit applications shall be accompanied by a $25.00 fee in addition to the standard fee.

(4) The recipient of an emergency authorization shall submit an application in writing in accordance with the provision of Rule 40A-3.041, F.A.C., Permits Required. Permit applications shall be postmarked within 24 hours of the time the emergency authorization was granted by the District; the application shall also be accompanied by a handwritten note stating the nature of the emergency. All other provisions of these rules shall remain in force.

(5) Failure to fulfill the guidelines for obtaining emergency permits may result in the issuance of a Notice of Violation under the provisions of Rules 40A-3.041, 40A-3.301, and 40A-3.451, F.A.C.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.109, 373.308, 373.309, 373.313, 373.326, 373.342, 373.333 FS. History–New 4-14-80, Amended 1-9-86, Formerly 16G-3.45, 16G-3.16.

40A-3.461 Inspections.

(1) The District is authorized to inspect any water well or abandoned water well within its area of responsibility. The District may cause to be made such inspections as it deems necessary to insure conformity with applicable standards of this rule chapter. Duly authorized representatives of the District may, at reasonable times, enter upon and shall be given access to any premises for the purpose of such inspection.

(2) If, upon the basis of such inspections, the District finds the standards of this rule chapter have not been met, the District shall give the owner and contractor written notice stating which rules have been violated and shall order that necessary corrective action be taken within a reasonable time to be prescribed in such order. Failure to act in accordance with the order of the District after receipt of written notice shall be grounds for disapproval of the well.

(3) A site inspection must be completed by an authorized representative of the District or the Department prior to issuing a permit for construction of a public water supply well.

(4) The District shall be notified at least 24 hours in advance of placement of grout in the annular space of any public supply water well; failure to notify the District sufficiently in advance may result in delay of completion of the well. A District

representative will be on site to observe the grouting. If the District is properly notified and an inspector is not at the site at the appointed time, the grouting may be accomplished in his absence.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.119, 373.308, 373.309, 373.319, 373.333 FS. History– New 4-14-80, Amended 2-1-82, 1-9-86, Formerly 16G-3.46, 16G-3.22, Amended 7-1-98, 3-2-00.

40A-3.492 Violations of Permits.

(1) Actions, omissions, or conduct which shall be considered as violations for the purposes of Part I, Permitting, shall include the following:

(a) Failure to obtain a permit where required under Rule 40A-3.041, F.A.C.

(b) Failure to provide accurate information in the application for a permit.

(c) Failure to fulfill the guidelines for obtaining an emergency permit.

(d) Failure to comply with any or all permit conditions.

(e) Failure to submit a completion report within the time period specified in Rule 40A-3.411, F.A.C.

(f) Failure to file an accurate completion report.

(g) Failure to report to the District within thirty (30) days of expiration of the permit when no work is performed or the well is not completed.

(h) Failure to notify the District 24 hours prior to the grouting of the annular space of any public supply well.

(i) Failure to fulfill any other applicable requirements of Chapter 373, Part III, Florida Statutes, or Chapter 40A-3, F.A.C.

(2) Actions which may be taken by District staff upon determination that a violation has occurred are outlined in Rule 40A-3.980, F.A.C., of these rules.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.306, 373.308, 373.309, 373.319 FS. History–New 1-9-86, Formerly 40A-3.953, Amended 11-1-92, 11-1-95.

40A-3.502 Construction Methods.

(1) Wells must be so constructed, cased, grouted, plugged, capped, or sealed as to prevent uncontrolled surface flow, uncontrolled movement of water from one aquifer or zone to another, contamination of ground water or surface water resources, or other adverse impacts. The foregoing shall apply to all construction, repair or abandonment of wells in the District except for public water supply wells, which shall be constructed, repaired, or abandoned in accordance with Chapter 62-555, F.A.C.

(2) The well construction regulations promulgated by the Department governing the construction of potable wells in delineated areas, as set forth in Chapter 62-524, F.A.C., are hereby adopted by reference and made a part of this rule, and shall apply to all potable wells constructed, altered, repaired, or abandoned in those delineated areas of the District.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.306, 373.308, 373.309 FS. History–New 1-9-86, Amended 12-1-90, 2-19-91, 11-1-95.

40A-3.504 Location.

(1) Wells shall be located so as not to pose a threat of contamination to the District's water resources and to provide for the protection of the health, safety, and welfare of the user.

(2) Minimum spacing between wells and sanitary hazards such as septic tanks, drainfields, ground water contamination areas, cesspools, etc. shall be as specified by Section 381.0065 and Chapter 373, Part III, Florida Statutes, and the respective rules of the Department of Health and Rehabilitative Services and the Florida Department of Environmental Protection.

(3) The following minimum distances shall apply, unless an exemption has been obtained. The following list is not inclusive or exhaustive, and further reference to Chapters 62-524, 62-550, 62-555, 62-610, 64E-6, and 64E-8, F.A.C., should be made.

(a) Landscape and recreational area irrigation wells shall be located a minimum of seventy-five (75) feet from a sanitary hazard.

(b) Landscape and recreational area irrigation wells shall be located outside ground water contamination areas delineated by the Department of Environmental Protection in Rule 62-524.430, F.A.C.

(c) Domestic Self Supply water wells shall be located a minimum distance of twenty-five (25) feet from building foundations treated with pesticides.

(d) Domestic Self Supply water wells shall be located a minimum distance of seventy-five (75) feet from a sanitary hazard, such as an onsite sewage disposal system (OSDS).

(e) Domestic Self Supply water wells shall be located a minimum distance of one hundred and seventy-five (175) feet from storage and treatment facilities of livestock farms.

(f) Domestic Self Supply water wells within ground water contamination areas delineated by the Department of Environmental Protection shall be located as specified in Rule 62-524.500, F.A.C. The delineated areas are found in Rule 62-524.430, F.A.C.

(g) Limited Use Public Supply wells, constructed under the provisions of Chapter 64E-8, F.A.C., shall be located a minimum distance of one hundred (100) feet from a sanitary hazard, such as an onsite sewage disposal system (OSDS), if the sewage flow is less than 2000 gallons per day or 200 feet from an OSDS with sewage flows of 2000 gallons per day or more.

(h) Limited Use Public Supply wells, constructed under the provisions of Chapter 64E-8, F.A.C., within ground water contamination areas delineated by the Department of Environmental Protection shall be located as specified in Rule 62-524.500, F.A.C. The delineated areas are found in Rule 62-524.430, F.A.C.

(i) Public water supply wells constructed under provisions of Chapter 62-555, F.A.C., DEP Public Supply Wells, must be located a minimum distance of two hundred (200) feet from a sanitary hazard, such as an onsite sewage disposal system (OSDS).

(j) Public water supply wells shall be located a minimum distance of one hundred (100) feet from other sanitary hazards as identified in Department of Environmental Protection Rule 62-550.200, F.A.C.

(k) Public water supply wells shall be located a minimum distance of three hundred (300) feet from storage and treatment facilities of livestock farms.

(l) Public water supply wells shall be located a minimum distance of five hundred (500) feet from areas used for land application of reclaimed water.

(m) Public water supply wells within ground water contamination areas delineated by the Department of Environmental Protection shall be located as specified in Rule 62-524.500, F.A.C. The delineated areas are found in Rule 62-524.430, F.A.C.

(4) The District shall increase these distances if necessary to protect the health, safety, and welfare of individuals who may be exposed to ground water contamination through ingestion, inhalation, or dermal absorption.

(5) Exemptions to the above specified distances may be obtained from the District as provided by Rule 40A-3.051, F.A.C. The exemption request will be evaluated on such criteria as gradient, well location, natural barriers, impermeable geological strata, water quality sampling, grouting, and the use of water treatment systems acceptable to the Department of Environmental Protection or the local health unit.

(6) In subdivisions platted after January 1, 1972, domestic self-supplied potable wells may be located on lots with onsite sewage disposal systems (OSDS), provided that each lot has a minimum area of at least one-half acre and either a minimum dimension of one hundred (100) feet or mean of at least one hundred (100) feet of the side bordering the street and the distance formed by a line parallel to the side bordering the street drawn between the two most distant points of the remainder of the lot, and providing the projected daily domestic sewage flow does not exceed an average of 1,500 gallons per acre per day.

Rulemaking Authority 373.026, 373.044, 373.103, 373.113, 373.171, 373.308, 373.309, 373.326, 373.337 FS. Law Implemented 373.306, 373.308, 373.309, 373.326 FS. History–New 1-9-86, Amended 4-5-88, 8-1-89, 12-1-90, 2-19-91, 11-1-92, 11-1-93, 11-1-95.

40A-3.507 Casing and Liner Pipe Standards.

(1) Well casing and liner pipe shall be new or shall be pipe or casing in like-new condition. Such casing or pipe shall not be used unless free from leaks, breaks, corrosion, and dents; is straight and true; and is not out of round. Welded or seamless black or galvanized steel pipe or casing, or stainless steel pipe or casing, or approved types of nonmetallic pipe shall be used for well or liner pipe. All well casing shall meet and be clearly stamped with one of the following standards: (ASTM) A120-84, (ASTM) A53-89A, (ASTM) A589-89A, (ASTM) A-252-89, A135-89A; or (API) 5L-6/91. Well casing that conforms to any of the aforementioned ASTM or API standards must also conform to (ANSI/ASME) B-36.10M-85. All well casing shall be stenciled with the applicable standard no later than January 1, 1994. All well casing or liner pipe proposed for potable use placed into service on or after January 1, 1994, shall conform to NSF Standard 61-1991, National Sanitation Foundation, Post Office Box 1468, Ann Arbor, Michigan, 48106, as certified by an entity approved by the American National Standards Institute (ANSI).

(2) For well casing or liner pipe installed by driving, the casing or pipe shall not butt together inside threaded couplings unless the joint is electrically welded so as to be completely watertight. A drive shoe is required for use on pipe installed by driving unless exempted by the District.

(3) Well casing installed by driving shall not have less than the dimensions and weights specified in Table 1, unless it can be shown the casing will maintain its integrity so as to prevent degradation of the water resource. The Department of Environmental Protection, under the provisions of paragraph 62-532.500(1)(f), F.A.C., requires all alternative well casing, not listed in Table 1 to receive Department approval prior to use. Prior approval for the use of alternative materials shall also be obtained from the District.

TABLE 1
MINIMUM NOMINAL DIMENSIONS AND WEIGHTS FOR BLACK OR GALVANIZED STEEL CASING OR LINER PIPE INSTALLED BY DRIVING

Nominal Size (in.)	Outside Diameter (in.)	Wall Thickness (in.)	Plain End Weight (lb. ft.)
1.25	1.660	0.140	2.27
1.5	1.900	0.145	2.72
2	2.375	0.154	3.65
3	3.500	0.216	7.58
3.5	4.000	0.226	9.11
4	4.500	0.237	10.79
5	5.563	0.258	14.62
6	6.625	0.280	18.97
8	8.625	0.277	24.70
10	10.750	0.307	34.24
12	12.750	0.330	43.77
14-30		0.375 (standard wall, Schedule 40)	
Greater than 30		0.500 (standard wall, Schedule 40)	

Note: A 4 inch nominal size casing with a wall thickness of 0.188 and a plain end weight of 8.66 may be used if it conforms to standard API 5L-6/91, Grade B, 60 KSI tensile strength. For example A53-89a, Grade B, may also be substituted.

(4) Black or galvanized steel casing or liner pipe set into place without driving shall not have less than the dimensions and weights specified in Table 2.

TABLE 2
MINIMUM NOMINAL DIMENSIONS AND WEIGHTS FOR BLACK OR GALVANIZED STEEL CASING OR LINER PIPE SET INTO PLACE WITHOUT DRIVING

Nominal Size (in.)	Outside Diameter (in.)	Wall Thickness (in.)	Plain End Weight (lb. ft.)

1.25	1.660	0.140	2.27
1.5	1.900	0.145	2.72
2	2.375	0.154	3.65
2.5	2.875	0.203	5.79
3	3.500	0.188	6.65
3.5	4.000	0.188	7.65
4	4.500	0.188	8.66
5	5.500	0.188	10.79
6	6.625	0.188	12.92
8	8.625	0.188	16.94
10-16		0.250	
Greater than 16		0.375	

(5) Polyvinyl Chloride (PVC) pipe may be used for well casing or liner pipe. Any PVC pipe used to construct a water well shall have been marked by the manufacturer, under a method specified by the National Sanitation Foundation, Post Office Box 1468, Ann Arbor, Michigan, 48106, in ANSI-NSF Standard 14-1990, as suitable for use in potable water systems. Any PVC pipe used for well construction or repair shall, at a minimum, meet specifications for Standard Dimension Ratio (SDR 21) and have a working pressure rating of not less than 200 p.s.i. at 73 degrees F or shall be ASA Schedule 40. Other nonmetallic pipe shall not be used unless it can be shown the pipe will maintain its integrity so as to prevent degradation of the water resource. The Department of Environmental Protection, under the provisions of paragraph 62-532.500(1)(f), F.A.C., requires all other nonmetallic well casing to receive Department approval prior to use. Prior approval for the use of alternative materials shall also be obtained from the District.

(6) Steel well casing and liner pipe shall be joined in a watertight manner by threaded couplings, electrical welding methods or other methods approved by the District. PVC pipe shall be joined by heat welding, solvent bonding, threaded couplings or other methods approved by the District, which shall meet the strength requirements of the casing as specified in (5) above.

(7) Nonmetallic and stainless steel well casing or liner pipe shall not be installed or seated by driving unless it can be shown the casing or pipe will maintain its integrity so as to prevent degradation of the water resource. The Department of Environmental Protection, under the provisions of paragraph 62-532.500(1)(f), F.A.C., requires all alternative well casing, not listed in Table 1 to receive Department approval prior to use. Prior approval for the use of alternative materials shall also be obtained from the District.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.308, 373.309 FS. History–New 1-9-86, Formerly 40A-3.701(1)(a), Amended 4-5-88, 8-1-89, 12-1-90, 11-1-92.

40A-3.512 Standard Well Construction Methods.

(1) In the construction of a well, reasonable caution shall be taken to maintain the premises in sanitary condition and to minimize the entrance of contaminants into the water resource. Water and materials used in construction shall be reasonably free of contamination.

(2) For wells which penetrate multiple aquifers or zones, the well shall be completed so as to prevent cross-connections of different aquifers or zones and to prevent leakage of water from one aquifer or zone to another aquifer or zone. If a well cannot be properly completed to prevent such an interchange of water between water-bearing zones or to prevent a loss of artesian pressure, the well shall be abandoned and plugged in accordance with Rule 40A-3.531, F.A.C., of these rules or other specifications provided by the District, as may be appropriate for the geological conditions encountered.

(3) For wells completed into unconsolidated aquifers, casing shall extend from land surface to the well screen. The well screen shall be attached to the casing with a watertight seal.

(4) For wells obtaining water from consolidated aquifers, a continuous casing shall extend from the land surface into the producing aquifer, and such casing must extend below the static water level of the aquifer intended to supply the water to the well unless it can be shown an alternative placement of the casing will prevent degradation of the water resource. All caving zones shall be cased or screened. Prior approval for the use of alternative methods shall be obtained from the District.

(5) Wells constructed to provide water for irrigation systems are required to have installed an anti-syphon device adequate to protect against contamination of the water supply, pursuant to the requirements of Section 487.064, Florida Statutes.

(6) All water wells intended to provide potable water shall be thoroughly cleaned of all foreign substances and obstructing material after the well has been constructed. The well shall be developed by pumping, surging, bailing, or other means which effectively remove sediment, well cuttings, and foreign material from in and around the well. Such wells shall be properly disinfected after construction in accordance with Section 11, Well Disinfection, American Water Works Association Standard for Water Wells, AWWA A100-84, dated June 10, 1984, which is hereby incorporated by reference.

(7) It is the intent that all wells shall be constructed to prevent caving and pumping of sand. In areas where the potential exists for sand to enter the well, a screen shall be used. If a screen is not used and the completed well pumps sand, the well will be determined not to be suitable for its intended use and the well will have to be repaired or abandoned.

(8) The well casing shall extend a minimum of twelve (12) inches above ground level and shall not be cut off below ground level unless prior approval is obtained from the District. Circumstances for which such approval shall be considered include the practice of installing the well top, pump and pump control apparatus in a water tight below grade box specifically designed and installed for such purpose for a well whose location is not subject to flooding or inundation. Persons wishing to apply for approval shall submit their request to the District on NWFWMD Form No. 122, Request For Below Grade Well Casing Approval. The request will be reviewed in the same manner as exemption requests specified in Rule 40A-3.051, F.A.C.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.306, 373.308, 373.309 FS. History–New 1-9-86, Formerly 40A-3.701(2), Amended 8-10-87, 4-5-88, 8-1-89, 12-1-90, 11-1-92.

40A-3.517 Grouting and Sealing.

Wells shall be grouted and sealed to protect the water resource from degradation caused by movement of waters along the well annulus either from the surface to the aquifer or between aquifers, and to prevent loss of artesian pressure in artesian aquifers. All wells shall be constructed and sealed using a method which insures that an open or unnaturally permeable annular space does not remain when a well is completed.

(1) Rotary wells located south of grout line. Wells constructed by the rotary method and located south of the grout line established in Appendix I of these rules shall have an annular space between the casing and the borehole wall of not less than two inches and shall be sealed according to the following criteria:

(a) All diameter wells constructed by the rotary method and completed into a consolidated formation shall be sealed by filling the annular space with a two-inch thickness of grout from the bottom of the casing to the land surface.

(b) Wells constructed by the rotary method and completed into an unconsolidated formation shall be sealed by filling the annular space with a two-inch thickness of grout from a point above the top of the screen to the land surface if:

1. The well is a public water system as defined in subsection 40A-3.021(39), F.A.C., of this rule;
2. The well is for Limited Use Public Supply use as defined in subsection 40A-3.021(35), F.A.C., of this rule;
3. The well has a diameter of six inches or larger;
4. The well penetrates a confining bed;
5. The well is to be located within one thousand (1,000) feet of any source of pollution, including plants processing hazardous or toxic substances, sanitary landfills (active or closed), sewage percolation ponds, sewage spray irrigation fields, toxic waste disposal systems of any kind including known ground water contamination areas, or other such sources of pollution; or
6. The well, with an approved exemption from the District, is to be located within seventy-five (75) feet of an onsite sewage disposal system (OSDS).

(c) Wells constructed by the rotary method and completed into an unconsolidated formation, but which do not meet the conditions identified in subparagraph (1)(b), shall be sealed by filling the annular space with uncontaminated, well-compacted sand and sealing the top of the casing with grout that contains a minimum of one (1) cubic foot of cement.

(2) Rotary wells located north of the grout line. Wells constructed by the rotary method and located north of the grout line established in Appendix I of these rules shall have an annular space between the casing and the borehole wall of not less than two inches and shall be sealed according to the following criteria:

(a) Wells constructed by the rotary method and completed into a consolidated formation shall be sealed by filling the annular space with a two-inch thickness of grout from the bottom of the casing to the land surface if:

1. The well is a public water system as defined in subsection 40A-3.021(39), F.A.C., of this rule;
2. The well is for Limited Use Public Supply use as defined in subsection 40A-3.021(35), F.A.C., of this rule;

3. The well has a diameter of six (6) inches or larger;

4. The well is to be located within one thousand (1,000) feet of any source of pollution, including plants processing hazardous or toxic substances, sanitary landfills (active or closed), sewage percolation ponds, sewage spray irrigation fields, toxic waste disposal systems of any kind including known ground water contamination areas, or other such sources of pollution; or

5. The well, with an approved exemption from the District, is to be located within seventy-five (75) feet of an onsite sewage disposal system (OSDS).

(b) Wells constructed by the rotary method and completed into a consolidated formation, but which do not meet the conditions identified in paragraph (2)(a), shall be sealed by filling the annular space with a two-inch thickness of grout from the bottom of the casing up to a minimum distance of twenty (20) feet, or into the last confining bed encountered, whichever is greater. The remainder of the annular space shall be filled with uncontaminated, well-compacted sand, clay, or other material that is appropriate for the specific geological conditions encountered and that will prevent degradation of the water resource. The top of the casing shall be sealed with grout that contains a minimum of one (1) cubic foot of cement. Prior approval for the use of alternative methods or materials shall be obtained from the District.

(c) Wells constructed by the rotary method and completed into an unconsolidated formation shall be sealed by filling the annular space with a two-inch thickness of grout from a point above the top of the screen to the land surface if:

1. The well is a public water system as defined in subsection 40A-3.021(39), F.A.C., of this rule;

2. The well is for Limited Use Public Supply use as defined in subsection 40A-3.021(35), F.A.C., of this rule;

3. The well has a diameter of six inches or larger;

4. The well penetrates a confining bed;

5. The well is to be located within one thousand (1,000) feet of any source of pollution, including plants processing hazardous or toxic substances, sanitary landfills (active or closed), sewage percolation ponds, sewage spray irrigation fields, toxic waste disposal systems of any kind including known ground water contamination areas, or other such sources of pollution; or

6. The well, with an approved exemption from the District, is to be located within seventy-five (75) feet of an onsite sewage disposal system (OSDS).

(d) Wells constructed by the rotary method and completed into an unconsolidated formation, but which do not meet the conditions identified in subparagraph (2)(c), shall be sealed by filling the annular space with uncontaminated, well-compacted sand and sealing the top of the casing with grout that contains a minimum of one (1) cubic foot of cement.

(3) Driven wells located north or south of the grout line. Wells with casing which is driven starting at the land surface and thence to its final depth in a borehole that is equal to or smaller in diameter than the outside diameter of the casing, or which is driven starting at the land surface and thence to its final depth ahead of the drill bit, shall be sealed with grout if:

(a) Any part of the well is constructed by setting the casing in a previously constructed borehole which is larger in diameter than the outside diameter of the final casing, or, for any other reason, a space is created between the borehole and the casing. Such a well shall be sealed by filling the annular space with grout from bottom to top.

(b) The well is a public water system as defined in subsection 40A-3.021(39), F.A.C., of this rule or is for Limited Use Public Supply use as defined in subsection 40A-3.021(35), F.A.C., and the well is constructed by driving casing into a consolidated formation. Such a well shall be sealed by under-cutting or under-reaming the last five (5) feet of the hole before seating the casing. A minimum of one (1) foot of the enlarged hole must be in the consolidated formation in which the casing will be seated. The entire enlarged portion of the hole shall be filled with grout and the casing driven through the grout to refusal. The upper twenty (20) feet of the well shall have an annulus not less than two inches, and shall be sealed by filling the annular space with grout.

(4) Grouting and sealing of water wells shall be accomplished in the following manner unless an exemption is granted by the District for the use of alternative methods or materials that are appropriate for the specific geological conditions encountered and that prevent degradation of the water resource.

(a) Composition of neat cement grout shall not exceed six (6) gallons of water per cubic foot or 94-pound sack of Portland cement.

(b) The casing shall be centered in the borehole prior to grouting and sealing.

(c) In all cases, neat cement grout will be introduced into the annular space from bottom to top.

(d) The minimum set time for grouting of casing before drilling operations may continue will be as specified in Table 3 below.

TABLE 3
GROUT SETTING REQUIREMENTS

TYPE OF WELL	STEEL CASING	PVC CASING
Public Supply Well	MINIMUM OF 72 HOURS	MINIMUM OF 72 HOURS
Limited Use Public Supply Well	MINIMUM OF 12 HOURS	MINIMUM OF 12 HOURS
Other Wells:		
4 Inches and Smaller in Diameter	Driven into a consolidated formation with drive shoe MINIMUM OF 2 HOURS	Constructed into a consolidated formation utilizing a shell packer MINIMUM OF 4 HOURS
	Not driven into a consolidated formation but utilizing a shell packer MINIMUM OF 4 HOURS	Constructed into a consolidated formation not utilizing a shell packer MINIMUM OF 12 HOURS
	Sand-and-gravel wells which penetrate a confining bed which do not utilize a shell packer MINIMUM OF 12 HOURS	Sand-and-gravel wells which penetrate a confining bed and which do not utilize a shell packer MINIMUM OF 12 HOURS
Larger than 4 Inches in Diameter	MINIMUM OF 12 HOURS	MINIMUM OF 12 HOURS

(5) Other approved methods and materials may be used if they are appropriate for the specific geological conditions encountered and if they prevent degradation of the water resource. Prior approval for the use of alternative methods or materials shall be obtained from the District.

(6) In those cases where, during grouting operations, circulation of the neat cement grout is lost so that the annular space being grouted cannot be filled in one continuous operation, a tremie pipe shall be installed in the annular space to a point immediately above the zone of lost circulation; and the annulus shall be bridged at that point by sand or other suitable material introduced through the pipe until a level is reached at which grouting can be continued.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.306, 373.308, 373.309 FS. History–New 1-9-86, Formerly 40A-3.701(2)(e), Amended 8-10-87, 4-5-88, 8-1-89, 12-1-90, 11-1-92, 11-1-93.

40A-3.521 Well Seals.

(1) Temporary Well Seals. Whenever there is a temporary interruption in work on the well during construction, repair, or abandonment, the well opening shall be sealed with a substantial watertight cover. Except for those areas of the District with the concurrence of the Department, any well in which pumping equipment is installed seasonally or periodically shall, whenever pumping equipment is not installed, be capped with a watertight cap or valve.

(2) Permanent Well Seals. Wells located on ground subject to flooding shall be properly sealed to prevent the movement of contaminants and surface water into the well. The upper end of the well casing shall include a watertight seal with any vent above the 100-year flood level. Pumping equipment and any necessary pipe or electrical connections shall be so installed as to prevent inadvertent introduction of contaminants into the well. Pumping equipment and any necessary piping or electrical connections installed within the casing shall be installed through a well seal. An unobstructed inspection port equipped with a removable plug shall be provided and be accessible at the wellhead.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.306, 373.308, 373.309 FS. History–New 1-9-86.

40A-3.525 Explosives.

The use of explosives in well construction or development is prohibited unless it can be shown their use will not cause degradation of the water resource and will not endanger the health, safety, or welfare of the people. The use of explosives must be specifically approved by the District.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.306, 373.308, 373.309 FS. History–New 1-9-86, Amended 4-5-88.

40A-3.529 Flowing Wells.

If the well flows at land surface, a valve shall be provided and maintained for controlling the discharge from the well. For newly constructed wells, the responsibility for controlling the discharge from the well becomes the owner's upon the water well contractor's submission of a well completion report to the District.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.206, 373.209, 373.306, 373.308, 373.309 FS. History– New 1-9-86, Formerly 40A-3.701(4).

40A-3.531 Abandoned Well Plugging.

(1) All abandoned wells shall be plugged.

(2) It shall be the responsibility of:

(a) The water well contractor to plug any well drilled under his license which is not completed or is not suitable for its intended use when work is completed. Wells which are not completed by the contractor shall be plugged prior to the well drilling rig being removed from the site. A well which is determined to be unsuitable for its intended use shall be plugged within fourteen (14) days of notification from the District.

(b) The property owner to have properly plugged any existing abandoned well on his property, or any well on his property which, following construction, attains the state of an abandoned well as defined in subsection 40A-3.021(1), F.A.C., of these rules.

(3) Any well which was not constructed in accordance with the standards of Part II of these rules and fails to be corrected within a time certain may be deemed an abandoned well.

(4) Abandoned wells and wells shall be plugged by filling them from bottom to top with grout, unless otherwise provided in writing by the District. The use of alternative methods or materials shall not cause degradation of the water resource.

(5) Abandoned wells shall be plugged only by a licensed water well contractor.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.206, 373.207, 373.209, 373.306, 373.308, 373.309 FS. History–New 1-9-86, Formerly 40A-3.701(5), Amended 4-5-88, 8-1-89.

40A-3.550 Violations of Construction Standards.

(1) Acts or omissions which constitute violations of Part II of these rules governing well construction standards, shall include:

(a) Failure to meet the location requirements of Rule 40A-3.504, F.A.C.

(b) Failure to meet the casing specifications provided in Rule 40A-3.507, F.A.C.

(c) Failure to provide an antisyphon device on wells for irrigation systems.

(d) Failure to disinfect a well constructed for potable use.

(e) Failure to provide a nominal two-inch annulus in rotary constructed wells.

(f) Failure to properly seal the annular space of any well.

(g) Failure to plug an abandoned well.

(h) Failure to comply with any order for corrective work.

(i) Failure to fulfill any other applicable requirements of Chapter 373, Part III, Florida Statutes, or Chapter 40A-3, F.A.C.

(2) Actions which may be taken by the District staff upon determination that a violation has occurred are outlined in Rule 40A-3.980, F.A.C., of these rules.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.306, 373.308, 373.309, 373.319 FS. History–New 1-9-86, Amended 11-1-92.

40A-3.901 Forms and Instructions.

The following District forms are used in the implementation of this Chapter and are hereby incorporated by reference into this rule.

(1) NWFWMD Form 10; Application to Construct, Repair, or Abandon a Well (Effective 11-1-95).

(2) NWFWMD Form 114; Well Completion Report (Effective 11-1-95).

(3) NWFWMD Form No. 88; Application for Water Well Contractor License, (Effective 6-22-89);

(4) NWFWMD Form 122; Request For Below Grade Well Casing Approval (Effective 11-1-92).

Necessary forms may be obtained from:
District Headquarters, 152 Water Management Drive, Havana, FL 32333-9700, (850) 539-5999;
Marianna Field Office, 4765 Pelt Street, Marianna, FL 32446, (850) 482-9522;
Crestview Field Office, 800 Hospital Drive, Crestview, FL 32539, (850) 683-5048.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS., 62-532, F.A.C. Law Implemented 373.306, 373.308, 373.309 FS. History–New 4-14-80, Amended 10-27-80, 2-1-82, 1-9-86, Formerly 16G-3.90, Amended 8-1-89, 12-1-90, 2-14-91, 11-1-92, 11-1-93, 11-1-95.

40A-3.951 Introduction.

The purpose of this part is to implement the delegation of Section 373.333, Florida Statutes, under provisions of subsection 62-101.040(10), F.A.C., by the Department of Environmental Protection to the Northwest Florida Water Management District. This delegation provides authority to the District to suspend or revoke the license issued pursuant to Section 373.333, Florida Statutes, of any holder of such license who has violated any provision of Part III, Chapter 373, Florida Statutes, or any rule or regulation adopted pursuant to this part.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS., 17-1.04(8), F.A.C. Law Implemented 373.333(6) FS. History–New 2-1-82, Amended 1-9-86, 11-1-93.

40A-3.952 Violations.

(1) Violations for purposes of this Part IV shall mean the failure of any licensee or his agents or employees to comply with the provisions of Chapter 373, Florida Statutes, Chapter 40A-3, 62-531, 62-532, or 62-555, F.A.C.

(2) A licensee will be notified of any violation according to the procedures specified in Chapter 62-531, F.A.C., herein adopted by reference.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.323 FS. History–New 2-1-82, Amended 1-9-86, 8-1-89.

40A-3.980 Enforcement and Penalties.

(1) Enforcement of these rules shall be as provided by Chapter 373, Florida Statutes, and Chapter 62-531, F.A.C., adopted herein by reference.

(2) Penalties for violation of these rules shall be as provided by Chapter 373, Florida Statutes, and Chapter 62-531, F.A.C., adopted herein by reference.

Rulemaking Authority 373.044, 373.113, 373.171, 373.309, 373.337 FS. Law Implemented 373.333, 373.336 FS. History–New 4-14-80, Amended 10-1-84, Formerly 16G-3.75, 16G-3.76, 16G-3.31, 16G-3.32, 40A-3.751, Amended 8-1-89.

Section 11—Well Disinfection

Sec. 11.1 General

The well shall be disinfected to remove bacteriological contamination that may cause the well-water supply to be unsafe for human consumption.

Sec. 11.2 Disinfectant

A chlorine solution of water and available chlorine compounds shall be used for disinfecting the well.

Sec. 11.3 Disinfection Procedure

The chlorine solution used for disinfecting the well shall be of such volume and strength and shall be so applied that a concentration of at least 50 mg/L of available chlorine shall be obtained for the entire water depth of the well. The chlorine solution shall be prepared and applied to produce a contaminant-free sample.

11.3.1 *Overdosing requirement.* If the samples continue to show bacteriological contamination, the contractor shall prepare and apply to the entire depth of the well a total volume of the chlorine solution equal to at least four times the volume of water in the well and shall allow this solution to remain in the well for a period of at least 2 hours.

11.3.2 *Contractor's responsibility.* The contractor's responsibility will be fulfilled on completion of Sec. 11.3.

Sec. 11.4 Disinfection of Gravel-Pack Wells

During the addition of the gravel to a gravel-pack well, the material shall be disinfected.

11.4.1 *Single aquifer.* In single aquifer wells, the gravel-pack material shall be disinfected by maintaining and circulating a solution containing a chlorine residual of at least 50 mg/L. The circulating fluid shall be sampled at suitable intervals and tested for chlorine residual.

11.4.2 *Multiaquifer.* In multiaquifer wells, the gravel shall be disinfected by adding 0.5 lb (0.23 kg) of calcium hypochlorite tablets per ton of gravel. The tablets shall be distributed as uniformly as practical.