BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

PATRICIA Q. WEST

ON BEHALF OF

PROGRESS ENERGY FLORIDA

DOCKET NO. 050007-EI

AUGUST 8, 2005

Q. Please state your name and business address.

A. My name is Patricia Q. West. My business address is 100 Central Avenue, St. Petersburg, Florida, 33701.

Q. By whom are you employed and in what capacity?

A. I am employed by Progress Energy Florida, Inc. ("PEF" or "Company") as Manager of Environmental Projects and Strategy. In that position, I have responsibility for the development of compliance strategies pertaining to new regulatory requirements for energy supply facilities in Florida, North Carolina, South Carolina and Georgia.

Q. Please describe your background and experience in the environmental field.

A. I obtained my B.S. degree in Biology from New College of the University of South Florida in 1983. I was employed by the Polk County Health Department from 1983-1986 and by the Florida Department of Environmental Protection ("FDEP") from 1986-1990. At DEP, I was involved in compliance and

enforcement efforts associated with petroleum storage facilities. In 1990, I joined Florida Power Corporation as an Environmental Project Manager and then held progressively responsible positions in the company's environmental services department, including the position of team leader for the integration of the environmental functions of Florida Power and Carolina Power and Light. From 2001-2002, I served as Manager of Water Programs in the Environmental Services Section of PEF's Technical Services Department. In 2002, I assumed my current position as Manager of Environmental Programs and Strategy.

Q. Have you previously filed testimony before this Commission in connection with PEF Florida's Environmental Cost Recovery Clause?

A. Yes.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain material variances between the Estimated/Actual project expenditures and the original cost projections for environmental compliance costs associated with PEF's Pipeline Integrity Management, Aboveground Storage Tank Secondary Containment, and Section 316(b) Cooling Water Intake Programs for the period January 2005 through December 2005.

I also will explain the projected expenditures associated with PEF's integrated compliance program necessitated by the U.S. Environmental Protection Agency's (USEPA's) new Clean Air Interstate Rule (CAIR) and Clean Air

Mercury Rule (CAMR) for the remainder of 2005. PEF petitioned the Commission for approval of cost recovery for this program on May 6, 2005. *See* Docket No. 050316-EI.

Finally, I will describe three additional new environmental compliance programs that fall within my responsibility and for which PEF is seeking cost recovery in this docket.

Q. Are you sponsoring any exhibits to your testimony?

A. Yes. I am sponsoring the following exhibits:

- Exhibit No. __ (PQW-1) – a copy of Rule 62-550.310, Florida Administrative Code (F.A.C.);
- Exhibit No. __ (PQW-2) – a copy of Rule 62-520.420, F.A.C.; and
- Exhibit No. __ (PQW-3) -- Rule 62-761.510, F.A.C.
- Exhibit No. __ (PQW-4) – List of underground storage tanks required to be upgraded under Rule 62-761.510, F.A.C.

Q. Please describe the variance between the Estimated/Actual project expenditures and the original projections for the Pipeline Integrity Management Program for the period January 2005 to December 2005.

A. PEF projects a year-end variance of $ $208,000 in O&M costs for the Pipeline Integrity Management ("PIM") Program. This variance is primarily attributable to implementation of unanticipated activities undertaken to ensure pipeline protection for areas found to have inadequate coverage or other risk reduction

measures, in accordance with the PIM regulations and the company's PIM Plan. In addition total year-end capital expenditures for this program are estimated to be $1,130,629 higher than previously forecasted. As discussed in Mr. Portuondo's testimony, this increase is primarily attributable to a reclass of expenses in 2005 which were erroneously charged to another project in 2004.

Q. Please explain the variance between the Estimated/Actual project expenditures and the original projections for the Aboveground Storage Tank Program for the period January 2005 to December 2005.

A. PEF projects that total year-end costs for this program will be $240,385 less than originally projected. The variance is primarily due to the rescheduling of individual tank upgrades to ensure system availability during the critical hurricane season. The original estimate was based upon the completion of upgrades of two large tanks at the Intercession City Site. To ensure generation capability during the 2005 hurricane season only one tank and the fuel oil pipeline secondary containment at this site was completed. However, a small aboveground storage tank at PEF's Avon Park site which was originally scheduled in the 2006 work plan will be moved up and completed during the third and fourth quarters of 2005. Engineering of the Bayboro and Suwannee piping upgrades will also occur in 2005.

Q. Please explain the variance between the Estimated/Actual project expenditures and the original projections for the Section 316(b) Cooling Water Intake Program for the period January 2005 to December 2005.

A. PEF projects that total year-end costs for this program will be $338,775 less than originally projected. The variance is the result of delays in starting field sampling work at the Anclote and Bartow sites ($75,000) and FDEP's approval (via NPDES permit issued in May 2005) of deferring work for one year at Crystal River ($262,775).

Q. What costs do you expect to incur in 2005 in connection with the Clean Air Interstate Rule and the Clean Air Mercury Rule?

A. On May 6, 2005, PEF petitioned the Commission for approval of cost recovery for a new environmental program required to comply with these new regulations adopted by the USEPA. For the remainder of 2005, we estimate total capital expenditures of $2,000,000 for preliminary engineering activities and strategy development work necessary to determine the Company's integrated compliance strategy for the new rules.

Q. Are there any other new environmental programs that fall within your responsibilities for which PEF is seeking recovery in this docket?

A. Yes. PEF is seeking ECRC recovery of three additional new programs which fall within the scope of my responsibilities. The three new programs include a new Arsenic Groundwater Standard Program, a new Groundwater Compliance Program, and a new Underground Storage Tank Program.

Q. Are you familiar with the requirements that environmental costs must meet to be eligible for recovery through the ECRC?

A. Yes. The general requirements are that all expenditures must have been prudently incurred after April 13, 1993; all activities must be legally required to comply with a governmentally imposed environmental requirement which was created, or whose effect was triggered, after the company's last test year on which rates are based; and none of the expenditures are being recovered through some other cost recovery mechanism or through base rates.

Q. Do the three new programs qualify for cost recovery under these criteria?

A. Yes. As discussed in more detail below, all three of the new programs are being implemented in response to new environmental requirements which were created, or whose effect was triggered, after the minimum filing requirements (MFRs) were submitted in the Company's last rate case, Docket No. 000824-EI and were not included in the MFRs submitted in the current rate case before this commission in Docket No. 050078-EI. None of the costs of the three new programs are being recovered through base rates or any other cost recovery mechanism. PEF is seeking recovery of costs incurred after the date of the filing of this testimony.

Q. Please describe the new Arsenic Groundwater Standard Program.

A. On January 22, 2001, the USEPA adopted a new maximum contaminant level (MCL) for arsenic in drinking water, replacing the previous standard of 0.050 mg/L with a new MCL of 0.010 mg/L (10ppb). Effective January 1, 2005, the FDEP established the USEPA MCL as Florida's drinking water standard. See, Rule 62-550.310(1)(c), F.A.C. (Copy attached as Exhibit No. ___ (PQW-1).

The new standard has implications for land application and water reuse projects in Florida because the drinking water standard has been established as the groundwater standard by Rule 62-520.420(1), F.A.C. (Copy provided as Exhibit No. __ (PQW-2)). Lowering the arsenic standard requires new analytical methods for sampling groundwater at numerous PEF sites. Results from these tests will determine the extent of future compliance activities and associated costs.

Q. Has any other utility obtained approval of a similar program to comply with the new arsenic standard?

A. Yes, the Commission approved Gulf Power Company's program for compliance with this new standard in Order No. PSC-04-1187-FOF-EI, issued in Docket No. 040007-EI.

Q. Has PEF projected the costs associated with the new Arsenic Groundwater Standard Program?

A. Current O&M projections for testing are estimated to be $50,000 for 2005. Future compliance activities and costs will depend on the analytical results and discussions with FDEP. None of the costs for complying with the new standard are being recovered in base rates or through other cost recovery mechanisms.

Q. **Please describe the new Groundwater Compliance Program.**

A. In the mid 1990s, PEF evaluated naturally-occurring groundwater at some of its generating facilities to determine its ability to be used as a drinking water

supply. PEF discussed the results with FDEP in the context that the existing designation of the groundwater as "GII" (potential drinking water source) may not be appropriate and, therefore, groundwater discharges should not be held to the more stringent standards befitting of such designation. Based on these discussions, subsequent permits included language that required the groundwater discharges at these sites to meet a less stringent "GIII" standard. In 2004, however, the FDEP reversed its position on the issue in subsequent permitting actions for PEF's Bartow and Anclote Plants which applied the more stringent GII standard in Chapters 62-520 and 62-550, FAC. The upcoming renewal of the FDEP industrial wastewater (IWW) permit for PEF's Crystal River Plant is expected to include this change as well. As a result of these recent developments, PEF expects to incur costs for installation of new wells and monitoring to determine whether and to what extent additional measures must be taken to ensure compliance with the GII standards.

Q. Has PEF projected costs of the new Groundwater Compliance Program?

A. Yes. PEF preliminarily projects additional compliance costs of approximately $72,000 for new well installation and monitoring at the Crystal River Plant beginning as early as the latter half of 2005. Costs for future compliance activities and costs will depend on the analytical results and discussions with FDEP. None of the costs associated with the new Groundwater Compliance Program are being recovered in base rates or through other cost recovery mechanisms.

Q. Please describe the new Underground Storage Tank Program.

A. FDEP rules require that underground pollutant storage tanks and small diameter piping be upgraded with secondary containment by December 31, 2009. See Rule 62-761.510(5), F.A.C. (Copy provided as Exhibit No. __ (PQW-3). PEF has identified four storage Category A tanks that must comply with this rule: two at the Crystal River power plant and two at the Bartow power plant. Exhibit No. __ (PQW-4) is a list of the specific tanks that must be upgraded.

Q. Has any other utility obtained approval of any similar programs to comply with DEP 's Underground Storage Tank rules?

A. Yes, the Commission previously approved an underground storage tank program for Florida Power and Light Company in Order No. PSC-03-1348-FOF-EI, Docket No. 030007-EI.

Q. Has PEF projected the costs associated with the Underground Storage Tank Program?

A. Yes. PEF projects capital costs of $300,000 ($200,000 at Crystal River and $100,000 at Bartow) for the Underground Storage Tank Program. PEF expects to incur these costs in 2006. None of these costs are being recovered in base rates or through other cost recovery mechanisms.

Q. Does this conclude your testimony?

A. Yes it does.

(100) "VARIANCE" means approval from the Department affording a public water system an extended time for compliance with an applicable maximum contaminant level or maximum residual disinfectant level, or allowing a public water system to not comply with an applicable treatment technique requirement, due to the quality of the raw water.

(101) "VIRUS" means a virus of fecal origin which is infectious to humans by waterborne transmission.

(102) "WAIVER" means approval from the Department for elimination of enhanced coagulation requirements or enhanced softening requirements, elimination of disinfection requirements or certified operator requirements for transient non-community water systems using only ground water not under the direct influence of surface water, or reduction of the monitoring requirements for organic contaminants listed in paragraphs 62-550.310(4)(a) and (b), F.A.C.

(103) "WATERBORNE DISEASE OUTBREAK" means the occurrence of acute infectious illness, epidemiologically associated with the ingestion of water from a public water system which is deficient in treatment, as determined by the Department.

(104) "WELL" means any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is to conduct ground water from a source bed to the surface, by pumping or natural flow, when ground water from such excavation is used or is to be used for a public water supply system.

(105) "WHOLESALE SYSTEM" means a public water system that sells or otherwise delivers finished water to another public water system at least 60 days per year. A wholesale system that delivers water to a community water system is considered a community water system.

Specific Authority 403.861(9) FS. Law Implemented 403.853, 403.854, 403.8615, 403.862 FS. History–New 11-9-77, Amended 1-13-81, 11-19-87, Formerly 17-22.103, Amended 1-18-89, 5-7-90, 1-3-91, 1-1-93, Formerly 17-550.200, Amended 9-7-94, 12-9-96, 9-22-99, 8-1-00, 11-27-01, 4-3-03, 11-25-03, 10-14-04, 11-28-04, 1-17-05.

PART III QUALITY STANDARDS

62-550.300 Application of Quality Standards to Public Water Systems.

The ultimate concern of the public water system supervision program is the quality of water for human consumption when the water reaches the consumers. The following rules establish maximum contaminant levels (MCLs) and maximum residual disinfectant levels (MRDLs) for water within public water systems. Additionally, these rules establish treatment technique requirements in lieu of, or in addition to, MCLs for certain contaminants. Public water systems shall comply with the MCLs, MRDLs, and treatment technique requirements established herein unless granted a variance or exemption pursuant to Rule 62-560.510 or 62-560.520, F.A.C., or unless identified as excluded from the MCLs, MRDLs, or treatment technique requirements by this chapter. Public water systems shall take necessary corrective action approved by the Department to meet all applicable MCLs, MRDLs, and treatment technique requirements.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), (13), 403.853(1) FS. History–New 11-9-77, Amended 3-30-82, 11-19-87, Formerly 17-22.200, Amended 1-18-89, 1-3-91, Formerly 17-550.300, Amended 11-27-01.

62-550.310 Primary Drinking Water Standards: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels.

(These standards may also apply as ground water quality standards as referenced in Chapter 62-520, F.A.C.)

(1) INORGANICS – Except for nitrate and nitrite, which apply to all public water systems, this subsection applies to community water systems and non-transient non-community water systems only.

(a) The maximum contaminant levels for the inorganic contaminants are listed in Table 1, which is incorporated herein and appears at the end of this chapter.

(b) The maximum contaminant level for nitrate (as N) applicable to transient non-community water systems is 10 milligrams per liter. The Department or Approved County Health Department shall allow a contaminant level for nitrate (as N) of up to 20 milligrams per liter upon a showing by the supplier of water that the following conditions are met:

1. The water distributed by the water system is not available to children under 6 months of age or to lactating mothers, and

2. There is continuous public notification of what the nitrate level (as N) is and what the potential health effects of such exposure are.

3. The Department shall require monitoring every 3 months as long as the maximum contaminant level is exceeded. Should adverse health effects occur, the Department shall require immediate compliance with the maximum contaminant level for nitrate (as N).

(c) The revised maximum contaminant level of 0.010 mg/L for arsenic becomes effective January 1, 2005. All community and non-transient non-community water systems shall demonstrate compliance with the revised maximum contaminant level by December 31, 2007.

(2) DISINFECTANT RESIDUALS – Except for the chlorine dioxide maximum residual disinfectant level, which applies to all public water systems using chlorine dioxide as a disinfectant or oxidant, this subsection applies only to community or non-transient non-community water systems adding a chemical disinfectant to the water in any part of the drinking water treatment process. Maximum residual disinfectant levels (MRDLs) are listed in Table 2, which is incorporated herein and appears at the end of this chapter.

(3) DISINFECTION BYPRODUCTS – This subsection applies to all community or non-transient non-community water systems adding a chemical disinfectant to the water in any part of the drinking water treatment process. The Stage 1 maximum contaminant levels (MCLs) for disinfection byproducts are listed in Table 3, which is incorporated herein and appears at the end of this chapter.

(4) ORGANICS – This subsection applies only to community water systems and non-transient non-community water systems.

(a) The maximum contaminant levels for the volatile organic contaminants (VOCs) are listed in Table 4, which is incorporated herein and appears at the end of this chapter. The regulatory detection limit (RDL) for all VOCs is 0.0005 mg/L.

(b) The maximum contaminant levels and the regulatory detection limits (RDLs) for the synthetic organic contaminants (SOCs) are listed in Table 5, which is incorporated herein and appears at the end of this chapter.

(5) MICROBIOLOGICAL – This subsection applies to all public water systems. Monitoring requirements to demonstrate compliance with this subsection are defined in Rule 62-550.518, F.A.C.

(a) The maximum contaminant level is based on the presence or absence of total coliforms in a sample, rather than coliform density. For the purposes of the public notice requirements in Rule 62-560.410, F.A.C., a violation of the standards in this paragraph poses a non-acute risk to health.

1. For a system which collects at least 40 samples per month, if no more than 5.0 percent of the samples collected during a month are total coliform-positive, the system is in compliance with the maximum contaminant level for total coliforms.

2. For a system which collects fewer than 40 samples per month, if no more than one sample collected during a month is total coliform-positive, the system is in compliance with the maximum contaminant level for total coliforms.

(b) Any fecal coliform-positive repeat sample or *E. coli*-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or *E. coli*-positive routine sample is a violation of the maximum contaminant level for total coliforms. For the purposes of the public notification requirements in Rule 62-560.410, F.A.C., this is a violation that poses an acute risk to health.

(c) A public water system shall determine compliance with the maximum contaminant level for total coliforms in paragraphs (a) and (b) of this subsection for each month (or quarter for transient non-community water systems that use only ground water not under the direct influence of surface water and that serve 1,000 or fewer persons) in which it is required to monitor for total coliforms.

(6) RADIONUCLIDES – This subsection applies only to community water systems. The following are the maximum contaminant levels (MCLs) and regulatory detection limits (RDLs) for radionuclides:

(a) Naturally occurring radionuclides:

MAXIMUM CONTAMINANT LEVELS
FOR RADIONUCLIDES

CONTAMINANT	MAXIMUM CONTAMINANT LEVEL
Combined radium-226 and radium-228	5 pCi/L
Gross alpha particle activity including radium-226 but excluding radon and uranium	15 pCi/L
Uranium	30 ug/L

pCi/L = picoCuries per liter
ug/L = micrograms per liter

(b) Man-made radionuclides:

1. The average annual concentration of beta particle and photon radioactivity from man-made radionuclides in drinking water shall not produce an annual dose equivalent to the body or any internal organ greater than 4 millirem/year.

2. Except for those radionuclides listed below, the concentration of man-made radionuclides causing 4 mrem total body or organ dose equivalents shall be calculated on the basis of a 2 liter per day drinking water intake using the 168-hour data list in "Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure," NBS Handbook 69 as amended August 1963, U. S. Department of Commerce.

Average Annual Concentration Assumed to Produce
an Exposure of 4 millirem/year:

RADIONUCLIDE	CRITICAL ORGAN	pCi/L
Tritium	total body	20,000
Strontium-90	bone marrow	8

pCi/L = picoCuries per liter

3. If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed 4 millirem/year.

(c) For the purposes of monitoring for gross alpha particle activity, radium-226, radium-228, uranium, and beta particle and photon radioactivity in drinking water, the following regulatory detection limits shall be used:

CONTAMINANT	REGULATORY DETECTION LIMIT
Gross alpha particle activity	3 pCi/L
Radium-226	1 pCi/L
Radium-228	1 pCi/L
Uranium	1 ug/L
Tritium	1,000 pCi/L
Strontium-89	10 pCi/L
Strontium-90	2 pCi/L
Iodine-131	1 pCi/L
Cesium-134	10 pCi/L
Gross beta	4 pCi/L
Other radionuclides	1/10 of the applicable limit

pCi/L = picoCuries per liter
ug/L = micrograms per liter

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(1) FS. History–New 11-19-87, Formerly 17-22.210, Amended 1-18-89, 5-7-90, 1-3-91, 1-1-93, 1-26-93, 7-4-93, Formerly 17-550.310, Amended 9-7-94, 8-1-00, 11-27-01, 4-14-03, 4-25-03, 11-28-04.

62-550.315 Primary Drinking Water Standards: Treatment Technique Requirements.

(1) CONTROL OF ACRYLAMIDE AND EPICHLOROHYDRIN – This subsection applies to all public water systems using acrylamide or epichlorohydrin.

(a) Each system using acrylamide or epichlorohydrin shall certify annually in writing to the Department that the combination of dose and monomer level does not exceed the following levels:

1. Acrylamide = 0.05 percent dosed at one part per million (or equivalent).
2. Epichlorohydrin = 0.01 percent dosed at 20 parts per million (or equivalent).

(b) Certifications required by paragraph (a) above may rely on appropriate manufacturer or third party certifications.

(2) FILTRATION AND DISINFECTION (SURFACE WATER TREATMENT) – This subsection applies only to subpart H systems. Filtration and disinfection treatment technique requirements are specified in Rule 62-550.817, F.A.C.

(3) CONTROL OF LEAD AND COPPER – This subsection applies only to community water systems and non-transient non-community water systems. The treatment technique requirements for control of lead and copper are specified in 40 CFR 141, subpart I, as adopted under Rule 62-550.800, F.A.C.

(4) CONTROL OF DISINFECTION BYPRODUCT PRECURSORS (ENHANCED COAGULATION OR ENHANCED SOFTENING) – This subsection applies only to community or non-transient non-community water systems that are subpart H systems using conventional filtration treatment. The treatment technique requirements for control of disinfection byproduct precursors are specified in 40 CFR 141, subpart L, as adopted and modified under Rule 62-550.821, F.A.C.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(1), 403.861(17) FS. History–New 11-27-01, Amended 4-3-03.

62-550.320 Secondary Drinking Water Standards: Maximum Contaminant Levels.

This section applies only to community water systems. (These standards may also apply as ground water quality standards as referenced in Chapter 62-520, F.A.C.)

(1) The secondary maximum contaminant levels are listed in Table 6, which is incorporated herein and appears at the end of this chapter.

(d) Reclassification of ground water of the State which establishes more stringent or less stringent criteria than presently established by this chapter shall be adopted upon additional affirmative finding by the Commission that the proposed designated use is attainable, upon consideration of environmental, water quality, technological, social, economic, and institutional factors.

(6) In addition to the procedures in subsection (5) above, the following procedure shall be used to designate single source aquifers:

(a) Rulemaking procedures pursuant to Chapter 62-110.103, F.A.C., shall be followed;

(b) At least one fact-finding workshop shall be held in the affected area;

(c) All local, county, or municipal governments, water management districts, and state legislators whose districts or jurisdictions include all or part of a proposed single source aquifer shall be notified in writing by the Department at least 60 days prior to the workshop;

(d) A prominent public notice shall be placed in a newspaper, or newspapers if a large area is to be designated, of general circulation in the area of the proposed single source aquifer at least 60 days prior to the workshop;

(e) The Commission may reclassify an aquifer or portion of an aquifer as a single source aquifer within specified boundaries upon the affirmative finding that:

1. The aquifer or portion of the aquifer is the only reasonably available source of potable water to a significant segment of the population; and

2. The designated use is attainable, upon consideration of environmental, technological, water quality, institutional, social, and economic factors.

(f) When making the finding required by (6)(e) above, the Commission must specifically consider, upon presentation of any competent evidence at the hearing, the following:

1. Other sources of potable water which could be used and the costs of developing these sources; and

2. The long term adequacy of the ground water aquifer to supply expected future demands if other sources are not developed; and

3. Potential adverse effects from continued consumption of water from the aquifer if G-I classification does not occur; and

4. Potential adverse effects on existing and potential discharges to the affected ground water if G-I classification occurs.

Specific Authority 403.061 FS. Law Implemented 403.021, 403.061 FS. History–Formerly 28-5.06, 17-3.06, 17-3.081, Amended and Renumbered 1-1-83, Formerly 17-3.403, Amended 9-8-92, Formerly 17-520.410.

62-520.420 Standards for Class G-I and Class G-II Ground Water.

(1) In addition to the minimum criteria provided in Rule 62-520.400, F.A.C., waters classified as Class G-I and Class G-II ground water shall meet the primary and secondary drinking water quality standards for public water systems established pursuant to the Florida Safe Drinking Water Act, which are listed in Rules 62-550.310 and 62-550.320, F.A.C., except as provided in Rule 62-520.520, F.A.C., and subsections (4) and (5) below, and except that the total coliform bacteria standard shall be 4 per 100 milliliters. In addition, the primary drinking water standard for public drinking water systems for asbestos shall not apply as a ground water standard.

(2) If the concentration for any constituent listed in subsection (1) above in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative natural background quality shall be the prevailing standard for Class G-I and Class G-II ground water.

(3) Where natural background quality of the ground water cannot be determined in the upgradient well, and the concentration for any constituent listed in subsection (1) above in the background quality of the ground water is greater than the stated maximum, or for pH is also less than the minimum, the representative background quality shall be the prevailing standard for those installations.

(4) These standards shall not apply within a permitted zone of discharge as provided in Chapter 62-522, F.A.C. The minimum criteria specified in Rule 62-520.400, F.A.C., shall apply within the zone of discharge.

(5) Installations legally discharging or permitted to discharge to Class G-I, Class G-II, and Class F-I ground water on or before August 1, 1992, shall not be required to comply with the additional or more stringent drinking water standards approved for adoption by the Commission on July 27, 1992, and effective January 1, 1993, until January 1, 1995. However, all installations discharging to these ground waters are prohibited from causing a violation of such standards at any private or public water supply well outside the zone of discharge.

Specific Authority 403.061 FS. Law Implemented 403.021, 403.061, 403.087, 403.088 FS. History–Formerly 17-3.101, Amended and Renumbered 1-1-83, Formerly 17-3.404, Amended 9-8-92, 10-6-92, 4-14-94, Formerly 17-520.420.

62-520.430 Standards for Class G-III Ground Water.

(1) The minimum criteria established in Rule 62-520.400, F.A.C., shall apply to all Class G-III ground water except as provided in (2) below.

(2) The minimum criteria shall not apply to an underground injection facility that has received an aquifer exemption pursuant to Rule 62-528.300(3), F.A.C., unless there is danger to the environment, public health, safety, or welfare. The minimum criteria shall apply to all other facilities discharging to an exempted aquifer.

3. Swing-joints shall not be installed.

(d) Bulk product piping. Bulk product piping shall be constructed and installed in accordance with NFPA 30, and ASME B31.4.

(e) Secondary containment.

1. Small diameter integral piping that is in contact with the soil or that transports regulated substances over surface waters of the state shall have secondary containment.

2. Bulk product piping that is in contact with the soil shall have secondary containment.

3. Remote fill piping that is in contact with the soil shall have secondary containment.

4. The following integral piping systems are exempt from the requirements for secondary containment:

a. Integral piping that is in contact with the soil, and that is connected to storage tanks containing high viscosity regulated substances; and

b. Vertical fill pipes equipped with a drop tube.

Specific Authority 376.303 FS. Law Implemented 376.303 FS. History–New 12-10-90, Amended 5-4-92, Formerly 17-761.500, Amended 9-30-96, 7-13-98, , 6-21-04.

62-761.510 Performance Standards for Category-A and Category-B Storage Tank Systems.

(1) General. This section provides deadlines for Category-A and Category-B storage tank systems to meet the standards for Category-C storage tank systems in accordance with Rule 62-761.500, F.A.C.

(a) Installation:

1. Installation shall be completed by the deadlines specified in Table UST. However, if installation or upgrade activities are initiated before the deadlines, work can continue after the deadlines, provided that all work is completed within 90 days of:

a. Contract execution; or

b. Receipt of construction approval or permits.

2. Installation is considered to have begun if:

a. All federal, state, and local approvals or permits have been obtained or applied for to begin physical construction for installation of the system; or

b. Contractual obligations have been made for installation of the system which cannot be cancelled or modified without substantial economic loss, provided that such obligations are pursued diligently in good faith to achieve the requirements of this rule.

(b) By December 31, 1998:

1. All pressurized small diameter piping systems connected to dispensers shall have shear valves or emergency shutoff valves installed in accordance with paragraph 62-761.500(8)(c), F.A.C.

2. Cathodic protection test stations shall be installed in accordance with subparagraphs 62-761.500(1)(e)1. and (2)(b)2., F.A.C., for cathodically protected UST systems without test stations.

3. Fillboxes shall be color coded in accordance with paragraph 62-761.500(5)(a), F.A.C.

4. ASTs that have been reinstalled as USTs, shall meet the requirements of Rule 62-761.500, F.A.C.

(c) After July 13, 1998, a closure assessment shall be performed in accordance with subsection 62-761.800(3), F.A.C., before the installation of dispenser liners, piping sumps, or secondary containment of tanks and integral piping.

(d) Valves meeting the requirements of Section 2-1.7 of NFPA 30A, shall be installed by January 13, 1999 on any storage tank system located at an elevation that produces a gravity head on the dispenser or on small diameter piping.

(e) Small diameter piping transporting regulated substances over surface waters of the state shall have secondary containment by December 31, 2004.

(2) UST Category-A single-walled tanks or underground single-walled piping shall be considered to be protected from corrosion if the tank or piping was constructed with corrosion resistant materials, initially installed with cathodic protection, or had cathodic protection or internal lining installed before June 30, 1992.

(3) UST Category-B systems.

(a) All tanks containing pollutants, installed or constructed at a facility after June 30, 1992, shall have secondary containment.

(b) All tanks containing hazardous substances, installed or constructed at a facility after January 1, 1991, shall have secondary containment.

(4) Small diameter integral piping in contact with the soil that is connected to UST systems shall have secondary containment if installed after December 10, 1990.

(5) By December 31 of the appropriate year shown in Table UST below, all storage tank systems shall meet the performance standards of Rule 62-761.500, F.A.C., or be permanently closed in accordance with subsection 62-761.800(2), F.A.C.

TABLE UST

Year Tank or Integral Piping Installed	1989	1992	1995	1998	2004	2009
+Before 1970	O	B		ACFL	D	E
+1970-1975		SBL		ACF	D	E
+1976-1980		B	SL	ACF	D	E
+1981-09/01/84		B		ACFL	D	E
+09/02/84-06/30/92		B		ACFL	D	E
+Other*		B		ACFL	D	E

Key to Table UST

* = All systems with a capacity of between 110 gallons and 550 gallons, all marine fueling facilities as defined in Section 376.031, F.S., and those systems of greater than 550 gallon capacity that use less than 1,000 gallons per month or 10,000 gallons per year.

A =

(1) Small diameter piping that was protected from corrosion by June 30, 1992, shall have:

(a) For pressurized piping, line leak detectors with automatic shutoff, or flow restriction in accordance with paragraph 62-761.640(4)(a), F.A.C.; or

(b) For suction integral piping:

1. Secondary containment in accordance with paragraph 62-761.500(1)(d), F.A.C.;

2. A single check valve installed in accordance with subparagraph 62-761.610(3)(a)3., F.A.C.;

3. An annual line tightness test in accordance with subparagraph 62-761.610(3)(a)1., F.A.C.; or

4. External monthly monitoring or release detection in accordance with sub-subparagraph 62-761.610(3)(a)1.b., F.A.C.

(2) Bulk product piping in contact with soil shall be upgraded with secondary containment unless the piping is:

(a) Constructed of corrosion resistant materials or upgraded with cathodic protection; and

(b) Tested on an annual basis in accordance with API RP 1110, ASME B31.4, or an equivalent method approved by the Department in accordance with Rule 62-761.850, F.A.C.

B = Vehicular fuel petroleum storage tank systems shall be upgraded with spill containment.

C = Secondary containment in accordance with paragraph 62-761.500(1)(d), F.A.C., shall be required for the following:

(1) Concrete storage tanks;

(2) Hazardous substance storage tank systems; and

(3) For pollutant storage tank systems, the storage tank or small diameter piping not protected from corrosion by June 30, 1992.

D = (1) Secondary containment shall be installed for small diameter piping extending over surface waters.

(2) Secondary containment for remote fill-pipes associated with Category-A and Category-B systems.

E = Pollutant storage tanks and small diameter piping protected from corrosion on or before June 30, 1992, and all manifolded piping, shall be upgraded with secondary containment.

F = (1) Storage tank systems, excluding vehicular fuel petroleum storage tank systems, shall be upgraded with spill containment, dispenser liners (as applicable), and overfill protection.

(2) Unless contained within secondary containment, swing-joints and flex-connectors that are not protected from corrosion shall be protected from corrosion. Facilities that have pressurized small diameter piping and that have not met the foregoing standard on or before July 13, 1998 shall protect the submersible turbine pump from corrosion or provide corrosion protection for the submersible turbine pump if the pump is not installed within secondary containment. Corrosion protection is not required for the submersible turbine pump riser.

L = (1) Category-A USTs and their integral piping systems that contain vehicular fuel, and that are not protected from corrosion, shall have secondary containment, or be upgraded with secondary containment in accordance with Rule 62-761.500, F.A.C.

(2) Dispenser liners and overfill protection equipment shall be installed at UST Category-A systems containing vehicular fuel.

O = UST Category-A vehicular fuel storage tank systems subject to Chapter 17-61, F.A.C., (1984), shall be retrofitted for corrosion protection.

S = Secondary containment for storage tanks and integral piping not protected from corrosion.

Specific Authority 376.303 FS. Law Implemented 376.303-.3072 FS. History–New 12-10-90, Amended 5-4-92, Formerly 17-761.510, Amended 9-30-96, 7-13-98, 6-21-04.

62-761.600 Release Detection Standards.

(1) General.

Docket No. 050007-EI
Progress Energy Florida, Inc.
Witness: Patricia Q. West
Exhibit No. __ (PWQ-4)
PEF Underground Storage Tanks

Progress Energy Florida Underground Storage Tanks								
Facility	**Tank ID PEF/DEP**	**Year**	**Size**	**Contents**	**Category**	**Compliance deadline**	**Schedule**	**Citation**
Bartow	NA / 12	1990	1,000	Unleaded gas	A	2009	2006	62-761.510(5)
	15 / 6	1988	550	Vehicle diesel	A	2009	2006	62-761.510(5)
Crystal River North Coal Yard	NA / 2	1991	10,000	Vehicle diesel	A	2009	2006	62-761.510(5)
	NA / 5	1986	10,000	Unleaded gas	A	2009	2006	62-761.510(5)