

John T. Butler Assistant General Counsel – Regulatory Florida Power & Light Company 700 Universe Boulevard Juno Beach, FL 33408-0420 (561) 304-5639 (561) 691-7135 (Facsimile) E-mail: john.butler@fpl.com

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PM 3:

August 1, 2012

# -VIA HAND DELIVERY -

Ms. Ann Cole Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

## Re: Docket No. 120007-EI

Dear Ms. Cole:

I am enclosing for filing in the above docket the following:

- 1. The original and seven (7) copies of Florida Power & Light Company's ("FPL") Petition for Approval of the Environmental Cost Recovery Actual/Estimated True-Up for the Period January 2012 through December 2012 and for Approval of the Thermal Discharge Standards Project, Gopher Tortoise Relocation Project, and Steam Electric Effluent Guidelines Revised Rule Project, together with a CD containing the electronic version of same.
- 2. The Original and fifteen (15) copies of the prefiled testimony and exhibits of FPL Witnesses T.J. Keith and R.R. LaBauve.

If there are any questions regarding this transmittal, please contact me at 561-304-5639.

testimony only nclosures AFD) E: Counsel for Parties of Record (w/encl.) APA **ECO** ENG GCL **IDM** TEL fund ( testimony only ) orida Power & Light Company CLK

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POOLMENT NUMBER-DATE

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700 Universe Boulevard, Juno Beach, FL 33408

**FPSC-COMMISSION CLERK** 

# **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

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IN RE: Environmental Cost Recovery Clause Docket No. 120007-EI Filed: August 1, 2012

# PETITION FOR APPROVAL OF THE ENVIRONMENTAL COST RECOVERY ACTUAL/ESTIMATED TRUE-UP FOR THE PERIOD JANUARY 2012 THROUGH DECEMBER 2012 AND FOR APPROVAL OF THE THERMAL DISCHARGE STANDARDS PROJECT, GOPHER TORTOISE RELOCATION PROJECT AND STEAM ELECTRIC EFFLUENT GUIDELINES REVISED RULE PROJECT

Florida Power & Light Company ("FPL") pursuant to Order No. PSC-93-1580-FOF-EI, hereby petitions this Commission to approve the calculation of its Environmental Cost Recovery ("ECR") Actual/Estimated True-up over-recovery of \$7,620, including interest, for the period January 2012 through December 2012 and to approve the Thermal Discharge Standards Project, Gopher Tortoise Relocation Project and Steam Electric Effluent Guidelines Revised Rule Project, such that the reasonable costs incurred by FPL in connection with those activities may be recovered through the ECR clause. In support of this Petition, FPL incorporates the prepared written testimony and exhibits of FPL witnesses T.J. Keith and R.R. LaBauve.

1. Section 366.8255 of the Florida Statutes, which became effective on April 13, 1993, authorizes the Commission to review and approve the recovery of prudently incurred Environmental Compliance Costs.

2. Order No. PSC-99-2513-FOF-EI, issued on December 22, 1999, requires utilities to file their current period actual/estimated true-ups at least 90 days prior to the ECR clause hearing. The hearing in this docket is scheduled to commence on November 5, 2012, which is more than 90 days after the filing of this petition.

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3. The calculation of the ECR Actual/Estimated True-up amount for the period January 2012 through December 2012 is contained in Commission Schedules 42-1E through 42-9E, which are attached as Appendix I to Mr. Keith's testimony.

4. FPL's ECR Actual/Estimated True-up over-recovery for the period January 2012 through December 2012, including interest, is \$7,620, as set forth in the testimony and exhibits of Mr. Keith. Pursuant to Order No. PSC-02-1735-FOF-EI, FPL has included actual costs for the period January 2012 through June 2012 and revised estimates for the period July 2012 through December 2012.

5. Mr. LaBauve's prepared testimony and documents present and support the following new environmental compliance activities for recovery through the ECR Clause: the Thermal Discharge Standards Project, the Gopher Tortoise Relocation Project, and the Steam Electric Effluent Guidelines Revised Rule Project. Mr. LaBauve's testimony and documents describe these new activities, identify the environmental laws or regulations requiring the new activities, the forecasted costs associated with the new activities, and a description of the steps FPL is taking to ensure that the environmental compliance costs to be incurred by FPL pursuant to the new activities are prudent. This information shows that the new activities meet the requirements for recovery set forth in Section 366.8255 of the Florida Statutes and that the forecasted environmental compliance costs associated with it are reasonable.

## **Thermal Discharge Standards Project**

6. The Thermal Discharge Standards Project is required pursuant to Section 316(a) of the Federal Clean Water Act, which requires thermal effluent limitations that will assure protection and propagation of balanced, indigenous population of shellfish, fish, and wildlife. Under Section 316(a), thermal dischargers can be granted less stringent alternate thermal limits than those imposed by a state program if the discharger can demonstrate that the current effluent limitations, based on water quality standards, are more stringent than necessary to protect the aquatic organisms in the receiving water body. This rule is implemented through the National Pollutant Discharge Elimination System (NPDES) program, which is conducted in Florida by the Florida Department of Environmental Protection (FDEP). Additionally, power plants with once-through water cooling water systems built before July 1, 1972 must meet a "narrative thermal standard found in Rule 62-302.520(1) (a)-(c) F.A.C. Facilities that cannot meet the FDEP narrative standard for thermal discharges may apply for a "variance" (i.e. less stringent standards) under Section 316(a) of the Federal Clean Water Act.

7. FPL's Plant Cape Canaveral (PCC) and Plant Riviera (PRV) have been impacted by the EPA's recent more stringent guidance on Section 316(a) variances. The renewed NPDES Permit for PCC contains the requirement that a Plan of Study (POS) to justify a Section 316(a) variance be developed. FPL anticipates, based on the new EPA guidance and conversations with EPA Region 4 and FDEP, that the scope of the POS may need to be significantly expanded; this would result in substantial increases in compliance costs. Additionally, the most recent version of the PRV State Industrial Waste Water (IWW) Permit contains language that could result in a substantially higher level of effort to demonstrate compliance with 62-302.520(1) F.A.C. The proposed Thermal Discharge Standards Project includes activities needed to implement FPL's proposed Plan of Study approach for its PCC and PRV sites, compliance costs based on the scope of the final approved POS, baseline biological studies, other data collection and modeling of both sites.

## **Gopher Tortoise Relocation Project**

8. The Gopher Tortoise Relocation Project is required by Rule 68A-27.003(1)(d)3, F.A.C. -- Designation of Endangered Species; Prohibitions, which states that: "No person shall take, attempt to take, pursue, hunt, harass, capture, possess, sell or transport any gopher tortoise or parts thereof or their eggs, or molest, damage, or destroy gopher tortoise burrows, except as authorized by Commission permit or when complying with Commission approved guidelines for specific actions which may impact gopher tortoises and their burrows." In 2008, the Florida Fish and Wildlife Conservation Commission provided new gopher tortoise guidelines that have changed the permitting process for relocations (i.e., a gopher tortoise agent is now required and all tortoises now must be sent to a recipient site). Gopher tortoises have been creating burrows in the cooling pond embankments at FPL's Martin (PMR), Manatee (PMT) and Sanford (PSN) power plants over time, as well as in the oil tank farm embankments at PMR and PMT. Gopher tortoise burrows must be inspected and then filled as necessary to ensure the integrity of these embankments. Filling burrows means that affected gopher tortoises must be relocated. In March 2012, surveys were conducted that found gopher tortoise burrows at PMT. This project includes the relocation of gopher tortoises found in burrows that could comprise the integrity of embankments at FPL's plants.

# **Steam Electric Effluent Guidelines Revised Rule Project**

9. The Steam Electric Effluent Guidelines Revised Rule Project is required by Title 40 of the Code of Federal Regulations, Part 423, which was promulgated under the authority of the Federal Clean Water Act. This regulation limits the discharge of pollutants into navigable waters and into publicly owned treatment works by existing and new sources of steam electric power plants. EPA has initiated revisions to Title 40 CFR 423 - Steam Electric Effluent Guidelines, which set minimum standards for treatment of wastewater from steam electric power plants. The EPA is revising the rule because, "current regulations, which were issued in 1982, have not kept pace with changes that have occurred in the electric power industry over the last three decades." The revisions are directed primarily at waste streams such as ash sluice water and scrubber wastewater from coal-burning facilities, but there could be impacts to nuclear as well as oil and gas-burning facilities. Based on recent information obtained from the EPA, it appears that the EPA has decided that oil ash contact water will likely be impacted by the revisions to the guidelines and may require either dry handling of all ash, or require oil ash contact water to be segregated from other waste streams and not discharged to waters of the State.

10. In the latter part of 2012, FPL will be conducting extensive chemical analyses of oil ash handling effluent streams. Results from these analyses will be presented to the EPA to demonstrate the difference between these types of waste streams and waste streams from flue gas scrubbers and other coal ash related processes, which are significantly more complex and difficult to treat prior to a discharge. FPL's goal is to convince the EPA that oil ash handling effluent does not need to be regulated under the same strict requirements that apply to coal ash handling effluent. This project includes conducting analyses of oil ash related effluent streams to provide information for commenting on the upcoming draft rule, contractor fees to assist with developing and submitting comments on the draft rule, and operation of any oil ash or coal ash related treatment/handling systems that are required by the rule.

WHEREFORE, FPL respectfully requests the Commission to approve the ECR Actual/Estimated True-up over-recovery of \$7,620, including interest for the period January 2012 through December 2012 that is requested herein, and to approve the Thermal Discharge Standards Project, Gopher Tortoise Relocation Project, and the Steam Electric Effluent Guidelines Revised Rule Project, described above and in Mr. LaBauve's testimony and documents, such that the reasonable costs incurred by FPL in connection with these new activities may be recovered through the ECR clause.

Respectfully submitted,

R. Wade Litchfield, Esq. Vice President and General Counsel John T. Butler, Esq. Assistant General Counsel – Regulatory Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408-0420 Telephone: 561-304-5639 Fax: 561-691-7135

Bv: Jøhn T. Butler Plorida Bar No. 283479

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# CERTIFICATE OF SERVICE Docket No. 120007-EI

**I HEREBY CERTIFY** that a true and correct copy of the foregoing Petition for Approval of Environmental Cost Recovery Actual/Estimated True-up for the Period January 2012 through December 2012 has been furnished by hand delivery (\*) or U.S. Mail this 1<sup>st</sup> day of August, 2012, to the following:

Charles Murphy, Esq.\* Division of Legal Services Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, Florida 32399-0850

James D. Beasley, Esq. J. Jeffrey Wahlen, Esq. Ausley & McMullen Attorneys for Tampa Electric P.O. Box 391 Tallahassee, Florida 32302

Jeffrey A. Stone, Esq. Russell A. Badders, Esq. Beggs & Lane Attorneys for Gulf Power P.O. Box 12950 Pensacola, Florida 32591-2950

Samuel Miller, Capt., USAF USAF/AFLOA/JACL/ULFSC 139 Barnes Drive, Suite 1 Tyndall AFB, FL 32403-5319 Attorney for the Federal Executive Agencies J. R Kelly, Esq Patricia Christensen, Esq. Charles Rehwinkel, Esq. Office of Public Counsel c/o The Florida Legislature 111 W Madison St. Room 812 Tallahassee, FL 32399-1400

John T. Burnett, Esq. Dianne Triplett, Esq. Progress Energy Service Company, LLC P.O. Box 14042 St. Petersburg, Florida 33733-4042

Jon C. Moyle, Esq Vicki Kaufman, Esq. Counsel for FIPUG Moyle Law Firm, P.A. 118 N. Gadsden St. Tallahassee, FL 32301

Gary V. Perko, Esq. Hopping Green & Sams P.O Box 6526 Tallahassee, FL 32314 Attorneys for Progress Energy Florida

By:

John 7. Butler Fla Bar No. 283479

# BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

# DOCKET NO. 120007-EI FLORIDA POWER & LIGHT COMPANY

# AUGUST 1, 2012

# **ENVIRONMENTAL COST RECOVERY**

# ACTUAL/ESTIMATED TRUE-UP JANUARY 2012 THROUGH DECEMBER 2012

# **TESTIMONY & EXHIBITS OF:**

T.J. KEITH R. R. LABAUVE

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1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		FLORIDA POWER & LIGHT COMPANY
3		TESTIMONY OF TERRY J. KEITH
4		DOCKET NO. 120007-Ei
5		August 1, 2012
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7	Q.	Please state your name and address.
8	Α.	My name is Terry J. Keith and my business address is 9250 West Flagler
9		Street, Miami, Florida, 33174.
10	Q.	By whom are you employed and in what capacity?
11	A.	I am employed by Florida Power & Light Company (FPL or the Company)
12		as Director, Cost Recovery Clauses in the Regulatory Affairs Department.
13	Q.	Have you previously testified in this docket?
14	А.	Yes, I have.
15	Q.	What is the purpose of your testimony in this proceeding?
16	Α.	The purpose of my testimony is to present for Commission review and
17		approval the Actual/Estimated True-up associated with FPL's
18		environmental compliance activities for the period January 2012 through
19		December 2012.
20	Q.	Have you prepared or caused to be prepared under your direction,
21		supervision or control an exhibit in this proceeding?
22	A.	Yes, I have. My exhibit TJK-2 consists of nine forms, PSC Forms 42-1E
23		through 42-9E, included in Appendix I. Form 42-1E provides a summary
24		of the Actual/Estimated True-up amount for the period January 2012

1 through December 2012. Forms 42-2E and 42-3E reflect the calculation 2 of the Actual/Estimated True-up amount for the period. Forms 42-4E and 3 42-6E reflect the Actual/Estimated O&M and Capital cost variances as 4 compared to original projections for the period. Forms 42-5E and 42-7E reflect jurisdictional recoverable O&M and Capital project costs for the 5 period. Form 42-8E (pages 13 through 71) reflects return on capital 6 7 investments and depreciation by project. Form 42-9E provides the capital structure, components and cost rates relied upon to calculate the revenue 8 9 requirement rate of return applied to capital investments and working capital amounts included for recovery for the period January 2012 10 11 through December 2012.

Q. Please explain the calculation of the Environmental Cost Recovery
 Clause (ECRC) Actual/Estimated True-up amount you are requesting
 this Commission to approve.

A. Forms 42-2E and 42-3E show the calculation of the ECRC Actual/Estimated True-up amount. The Actual/Estimated True-up amount for the period January 2012 through December 2012 is an over-recovery, including interest, of \$7,620, (Appendix I, Page 4, line 5 plus line 6). This Actual/Estimated True-up consists of actual data for January 2012 through June 2012 and revised estimates for July 2012 through December 2012, compared to original projections for the same period.

Q. Are all costs listed in Forms 42-1E through 42-8E attributable to
 environmental compliance projects previously approved by the
 Commission?

1 Α. Yes, with the exception of the Thermal Discharge Standards Project, 2 Steam Electric Effluent Guidelines Revised Rule Project and Gopher 3 Tortoise Relocations Project, all of which are discussed and supported in 4 the testimony of FPL witness Randall R. LaBauve and identified in FPL's 5 List of New Projects filed July 10, 2012. In addition, the modification to 6 the Manatee Temporary Heating System Project to include a manatee 7 temporary heating system for the Port Everglades plant filed in this 8 Docket on January 13, 2012, has not been previously approved by the 9 Commission.

# Q. How do the Actual/Estimated project expenditures for January 2012 through December 2012 compare with original projections?

A. Form 42-4E (Appendix I, Page 7) shows that total O&M project costs
were \$3,452,666 or 12.2% lower than projected and Form 42-6E
(Appendix I, Page 10) shows that total capital investment project costs
were \$2,189,968 or 1.3% higher than projected. Individual project
variances are provided on Forms 42-4E and 42-6E. Return on Capital
Investment and Depreciation for each project for the Actual/Estimated
period are provided on Form 42-8E (Appendix I, Pages 13 through 71).

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Following are explanations for FPL's approved O&M Projects and Capital Investment Projects with significant variances.

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1		O&M Project Variances
2	Project 1.	Air Operating Permit Fees
3		Project expenditures are estimated to be \$783,832 or 60.8% lower
4	,	than previously projected. Lower than projected natural gas
5		prices resulted in significantly less oil-fired operation than
6		estimated for the oil-burning units. Air Permit fees and payments
7		to the State of Florida are based on actual unit operations and
8		performance.
9	Project 3a.	Continuous Emission Monitoring Systems (CEMS)
10		Project expenditures are estimated to be \$148,242 or 19.6% lower
11		than previously projected. The variance is primarily due to the
12		following reasons:
13		Fewer oil sample analyses were required than previously
14		projected due to reduced oil combustions as a result of
15		lower than projected gas prices.
16		• Lower than projected costs for Data Acquisition and
17		Handling System (DAHS) 24/7 software support that
18		resulted from vendor discounted unit support fees as the
19		number of total units supported under the contract has
20		increased.
21		Lower than projected costs associated with CEMS routine
22		maintenance at Ft. Lauderdale, Putnam, Sanford, Pt.
23		Everglades, and Ft. Myers plants due to less run time as a
24		result of lower than projected natural gas prices and fewer

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parts required to be replaced.

2 Maintenance of Stationary Above Ground Fuel Storage Tanks Project 5a. 3 Project expenditures are estimated to be \$466,470 or 21.3% lower 4 than previously projected. The variance is primarily due to 5 opportunities to eliminate storage tank work previously projected 6 for 2012. At the time of the original projection filing, it was not yet 7 clear whether the Port Everglades plant would be modernized. As 8 a result of the approval of the modernization project at the Port 9 Everglades plant, the Fuel Oil Terminal facility will be 10 decommissioned in 2013, and therefore the replacement of 11 asphalt storage tank aprons on tanks 801, 802, 807 and 808 at 12 the terminal was not performed. Additionally, with the 13 decommissioning planned for Sanford Unit 3 in 2013/2014, an 14 Alternate Procedure was submitted to the Florida Department of 15 Environmental Protection (FDEP) requesting to forego the API-653 internal tank inspection on Sanford Plant Units 3A, 3B and 16 17 light oil tanks scheduled for August 2012 and proceed to 18 decommissioning and clean closure in 2013/2014. Concurrence 19 from the FDEP on our Alternate Procedure is forthcoming. Finally, 20 there were lower than projected mechanical repairs resulting from 21 the Martin Fuel Terminal T-1271B Storage Tank API internal 22 inspection.

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#### Project 8a. Oil Spill Cleanup/Response Equipment

Project expenditures are estimated to be \$190,461 or 89.6%

1 higher than previously projected. The variance is primarily due to 2 the development and deployment of Hazardous Worker 3 Operations Training (HAZWOPER) 40hr, 24hr, 8hr and Incident Command Training required for FPL's Oil Spill Response teams to 4 5 be in compliance with OPA 90 regulations. With updates to the 6 facility response plans in the first guarter of 2012, a substantial 7 gap was indentified in the number of HAZWOPER trained 8 personnel on the Initial Spill Response teams and Corporate Oil 9 Spill response team. The majority of these costs are associated 10 with third party vendors that provide this specialized classroom 11 training.

## 12 Project 13. RCRA Corrective Action

Project expenditures are estimated to be \$76,000 or 76% lower than previously projected. The variance is primarily due to delays in receiving the final approval of the deed restriction package from the FDEP. The work plan for completion has been deferred until approval is received.

## 18 Project 14. NPDES Permit Fees

19Project expenditures are estimated to be \$40,875 or 35.5% lower20than previously projected. A reversing entry was recorded in21February 2012 for 2011 costs associated with the NPDES22permitting renewal process that were inadvertently charged to the23environmental clause. Additionally, a correcting entry was24recorded in April 2012 for a chlorination study performed at the St.

1		Lucie plant as a result of a permit renewal condition that should
2		have been charged to Project 47 - NPDES Industrial Waste Water
3		Permits in 2011.
4	Project 17a.	Disposal of Noncontainerized Liquid Waste
5		Project expenditures are estimated to be \$59,748 or 27.0% lower
6		than previously projected. The variance is primarily due to work at
7		Port Everglades Plant that was originally budgeted in the ECRC
8		that will now be charged to the Port Everglades Modernization
9		Project. The work at Port Everglades Plant included site
10		remediation and removal of the ash basins.
11	Project 19a.	Substation Pollutant Discharge Prevention & Removal
12		Project expenditures are estimated to be \$1,269,224 or 45.0%
13		lower than previously projected. The variance is primarily due to
14		manufacturing delays in the delivery of certain transformer
15		components (e.g., radiators and bushings) from vendors, which
16		has caused a reduction in the work schedule. These components
17		are needed prior to performing transformer regasketing work. The
18		components are expected to be delivered early next year.
19	Project 22.	Pipeline Integrity Management
20		Project expenditures are estimated to be \$46,708 or 9.8% lower
21		than previously projected. The variance is primarily due to lower
22		than estimated costs for work completed to remediate an area of
23		low pipeline ground cover along the pipeline at Manatee Terminal
24		found during a routine inspection.

1 Project 23. SPCC – Spill Prevention, Control & Countermeasures

2 Project expenditures are estimated to be \$180,585 or 18.9% 3 higher than previously projected. The variance is primarily due to costs that were reclassified from Capital to O&M. 4 The 5 replacement of Sanford Plant's Oily Water Separator was 6 identified as not being a full replacement of the system and 7 therefore, did not meet the capitalization policy. In addition, Martin 8 Units 3 and 4 had unplanned repairs to the secondary 9 containment around the diesel storage tank. The unplanned 10 repairs included concrete cracks and expansion joint repairs. This 11 variance was partially offset by a decrease in the substation oil 12 diversionary structure (i.e., perimeter curbing) repair, which was 13 deferred in order to negotiate new contracts with vendors.

#### 14 Project 24. Manatee Reburn

Project expenditures are estimated to be \$258,659 or 28.7% higher than previously projected. The variance is primarily due to a shift in work at Manatee Plant from 2011 to 2012 due to changes in the outage schedules that occurred after the approval of the 800 MW ESP project. This work includes the replacement of the Unit 1 and 2 Burner Scanners and Igniters, Unit 1 and 2 Burner Guide Tube Assemblies and Unit 1 Burner Swirlers.

#### 22 Project 25. Port Everglades Electrostatic Precipitator (ESP)

Project expenditures are estimated to be \$308,749 or 48.2% lower
than previously projected. The variance is primarily due to lower

than anticipated unit operation on fuel oil as a result of lower than
projected natural gas prices. In addition, projected costs
associated with the ESP overhaul at the Port Everglades plant will
not be incurred. As a result of the modernization of the facility in
2013, the overhaul will no longer be performed.

#### 6 Project 28. CWA 316(b) Phase II Rule

7 Project expenditures are estimated to be \$1,111,073 or 93.9% 8 lower than previously projected. EPA announced on July 18, 9 2012 that issuance of the new 316(b) rule would be delayed until July 27, 2013 (although this does not preclude EPA from issuing it 10 earlier). As a result, it is now anticipated that originally projected 11 2012 costs for studies will be spent in 2013. Also, costs for 12 Manatee, Sanford and Putnam plants with closed cooling systems 13 14 were removed from the budget since it is unlikely that the final rule 15 will apply to these plants. Since the rule is not final, these revised estimates are subject to change pending the specific 16 17 documentation and schedule requirements in the final rule.

#### 18 Project 29. SCR Consumables

Project expenditures are estimated to be \$144,143 or 41.2%
higher than previously projected. The variance is primarily due to
unexpected repairs of the Anhydrous Ammonia tank at the Martin
and Manatee plants found during the planned inspection required
by the plants' risk management plans per the Air Permit FacilityWide Conditions (FW9), and by regulation under 40 CFR Part 68.

1 The Anhydrous Ammonia tank required repairs to fittings that were 2 showing signs of corrosion at several locations on the tank. The 3 ammonia system had to be drained in order to repair the fittings 4 and as a result ammonia costs increased. In addition, there were 5 unanticipated costs associated with the inspection of the ammonia 6 piping at the Manatee plant. As part of the plants' risk 7 management plans, this inspection will occur every five years and 8 will require a piping Non Destructive Examination (NDE) 9 inspection, pipe coating and the removal of pipe lagging.

### 10 Project 31. CAIR Compliance

11 Project expenditures are estimated to be \$1,120,991 or 24.1% 12 lower than previously projected. The variance is primarily due to 13 lower than expected operating expenses of the Scherer Unit 4 14 Selective Catalytic Reduction (SCR) and Flue Gas Desulfurization 15 (FGD) as a result of a change in the start of the planned duct tie-in 16 outage in 2012. This resulted in the final installation and testing of 17 the SCR and FGD to occur later in the year than originally projected which reduced expected operating expenses. The SCR 18 completed testing and was placed in service June 14, 2012 and 19 20 testing of the FGD is expected to be completed in August 2012. 21 Ammonia injection costs decreased as a result of less operating 22 hours of the SJRPP SCR due to cost efficiencies. In addition, 23 subsequent to FPL's projection of anticipated legal costs for challenging the Clean Air Interstate Rule (CAIR), on December 24

23, 2011, the U.S. Court of Appeals for the D.C. Circuit
 unexpectedly stayed the CSAPR rule, resulting in lower than
 projected legal expenses for 2012.

#### 4 Project 32. BART Compliance

Project expenditures are estimated to be \$15,900, versus an 5 original estimate of \$0. As a result of the Circuit Court's vacature 6 7 of CAIR. Florida's Regional Haze State Implementation Plan 8 (SIP), which relied on EPA's assertion that CAIR was equal to 9 BART (Best Available Retrofit Technology), was no longer valid 10 for emissions of sulfur dioxide (SO2) and nitrogen oxides (NOx) 11 which were part of the Clean Air Visibility Rule (CAVR). Therefore, 12 several of our BART-eligible plants that were formerly exempt 13 from BART controls for SO2 and NOx (Putnum Units 1 and 2, 14 Turkey Point Units 1 and 2, Manatee Units 1 and 2, and Martin 15 Units 1 and 2), are now required to develop 5-factor BART 16 determinations and conduct visibility modeling to satisfy the BART 17 requirements of CAVR. This was unanticipated until late 2011. 18 The additional charges are consultant fees to develop the BART 19 determinations and visibility modeling for the four plants identified 20 above.

#### 21 Project 37. DeSoto Next Generation Solar Energy Center

Project expenditures are estimated to be \$127,739 or 11.5% lower
than previously projected. The variance is primarily due to lower
than projected costs associated with employee payroll and related

expenses, and overheads as a result of obtaining more
experience in maintaining the Desoto and Space Coast facilities.
It was determined that the site personnel at Desoto could also
support Space Coast Next Generation Solar Energy Center
reducing the payroll costs and expenses remaining at Desoto.
Additionally, planned technical support payroll and expenses were
less than projected as a result of less fleet team support.

8 Project 38. Space Coast Next Generation Solar Energy Center

Project expenditures are estimated to be \$306,336 or 51.2% lower 9 10 than previously projected. The variance is primarily due to lower than projected costs associated with employee payroll and related 11 12 expenses, overheads, and contractor services. Two full-time 13 positions included in the original budget will not be filled as 14 maintenance and operations are now covered by personnel 15 stationed at the Desoto Next Generation Solar Energy Center. In 16 addition, the new grounds maintenance contract was renegotiated 17 at a lower monthly cost and planned technical support was less 18 than projected.

19 Project 39. Martin Next Generation Solar Energy Center

Project expenditures are estimated to be \$1,059,615 or 42.7% higher than previously projected. The variance is primarily due to higher maintenance costs, employee payroll, and gas usage. The number of solar employees increased from 7 to 15 for a total increase of \$577,979 annually. The original staffing of 7 1 employees was based primarily on the number required to perform basic outside operations duties, inspection of watch, and 2 3 minor maintenance. FPL planned to determine how much staffing 4 was required after some operational experience and then increase 5 staffing as needed. After several months of operation it became 6 apparent that additional staffing was required to perform 7 operational and maintenance duties. Four of eight employees 8 were added in November, 2011 and the balance were added in 9 January, 2012.

Mirror washing costs have also increased from the original 2012 estimate by \$221,000. The original 2012 budget was based on washing mirrors every two weeks. FPL learned subsequently that mirror washing must be performed daily in order to maintain performance. A more aggressive cleaning schedule began in 2012 and will have an annual estimated cost of \$459,238.

Additionally, nitrogen gas usage is greater than planned. Nitrogen gas is used to displace the water that mixes with the heat transfer fluid. FPL projects an additional cost of \$147,900 for increased gas usage.

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Lastly, the preheater leak repairs began in June 2012 in the amount of \$175,000. Additional preheater leaks caused FPL to

exceed their original maintenance budget.

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Project 40.

Project expenditures are estimated to be \$58,500 or 97.5% lower than previously projected. The variance is primarily due to the purchase of a GHG reporting software and user training in 2011 subsequent to submittal of final projections for 2012. FPL implemented the system in 2011 earlier than anticipated to address initial implementation issues with sufficient margin prior to the regulatory required reporting deadline.

Greenhouse Gas Reduction (GHG) Program

10 Project 41. Manatee Temporary Heating System Project

Project expenditures are estimated to be \$705,074 or 52.8% less 11 12 than previously projected. The variance is primarily due to lower than expected system operating costs at the Cape Canaveral 13 plant as a result of design enhancements that were identified 14 during the previous manatee heating season (October 2010 15 through March 2011), as well as unseasonably warm weather. 16 17 The intake refuge perimeter design enhancement, primarily the 18 addition of a sheet pile wall to minimize the refuge size and open 19 boundary, has improved the capability to maintain the refuge at the required 68°F and thus minimizing the loss of heated water to 20 21 the Indian River. In addition to the refuge perimeter 22 enhancement, the unseasonably warm weather has resulted in the need to operate the primary heating source less often and no 23 24 need to operate the supplemental heater. As a consequence,

FPL has needed less contracted manpower to operate both
 heaters, as well as incurring reduced manatee observer labor
 costs.

4 Project 42. Turkey Point Cooling Canal Monitoring Plan

5 Project expenditures are estimated to be \$1,245,000 or 94,3% 6 higher than previously projected. The variance is primarily due to 7 increased monitoring efforts required by the South Florida Water 8 Management District (SFWMD), the FDEP and Miami Dade 9 County. Preliminary estimates were based on reduced sampling 10 by approximately 50% because of FPL's request to reduce the 11 current sampling requirements. The agencies have not agreed to 12 any of FPL's request at this time and are now requiring additional 13 and more detailed sampling requirements which have increased 14 lab analysis costs. In addition, unanticipated annual geophysical 15 surveys are now being required by the agencies.

#### 16 Project 45. 800 MW Unit ESP Project

17The variance of \$433,504 is due to O&M expenditures that were18not included in the original 2012 projections because the final19MATS rule had not yet been issued. On December 21, 2011, EPA20issued the final MATS rule, which has the effect of requiring ESPs21for the 800 MW oil-fired units. As a result, the revised estimate22now includes O&M costs for the August 2012 - December 201223period.

24 Project 46. St. Lucie Cooling Water Discharge Monitoring Project

1		Project expenditures are estimated to be \$576,195 or 57.7% lower
2		than previously projected. The variance is primarily due to
3		reversing charges that were inadvertently included in the budget
4		for this project. In addition, original estimates were based on initial
5		contract bids. FPL has since received lower than estimated fixed
6		price contracts for portions of the scope of work required. Costs
7		were deferred to 2013 due to a shift in the Extended Power Uprate
8		(EPU) outage schedule.
9	Project 47.	NPDES Permit Renewal Requirements
10		Project expenditures are estimated to be \$27,076 or 36.8% higher
11		than previously projected. The variance was primarily due to a
12		chlorination study that was required to be conducted by the St.
13		Lucie Plant NPDES permit renewal that was not included in the
14		original projections.
15	Project 48.	Industrial Boiler MACT Project
16		Project expenditures are estimated to be \$40,453 or 97.6% lower
17		than originally projected. The variance is due to changes that
18		were made to the implementation of the final rules which occurred
19		after Commission approval of FPL's Industrial Boiler MACT
20		project. On February 7, 2012, EPA issued no action assurance
21		letters which granted extensions for boilers at area sources until
22		the earlier of October 1, 2012 or a final rule on the reconsideration
23		of the Industrial Boiler MACT. Additionally, EPA proposed
24		reconsideration for area source boilers which would provide an

1		additional year to comply with the testing requirements. FPL
2		anticipates lower than originally projected costs for combustion
3		tuning with required testing for its industrial boilers at area
4		sources, which will be conducted in the July – December 2012
5		period following previously scheduled unit maintenance outages.
6		
7		Capital Project Variances
8	Project 8b.	Oil Spill Cleanup/Response Equipment
9		Project depreciation and return on investment are estimated to be
10		\$49,169 or 34.8% higher than previously projected. The variance
11		is primarily due to charges related to the Discharge Canal and
12		Intake Canal Oil Spill Hard Booms at the Port Everglades plant
13		that were inadvertently charged to the SPCC-Spill Prevention,
14		Control & Countermeasures project in June 2011. These costs
15		were reclassified to this project in March 2012.
16	Project 31.	CAIR Compliance
17		Project depreciation and return on investment are estimated to be
18		\$3,623,938 or 6.1% lower than previously projected. The variance
19		is primarily due to a shift in Scherer Unit 4 FGD costs from 2012 to
20		2013. Additionally, Scherer Unit 4 SCR equipment and
21		contingency costs were lower than originally projected.
22	Project 36.	Low-Level Radioactive Waste Storage
23		Project depreciation and return on investment are estimated to be
24		\$581,545 or 44.6% lower than previously projected. The variance

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- is primarily due to a change in the in-service date from March
   2012 to December 2013 due to the Turkey Point Unit 3 and Unit 4
   EPU outages.
- 4 Project 45. 800 MW Unit ESP Project

5 The variance of \$6,171,976 is due to project depreciation and 6 return on investment that were not included in the original 2012 7 projections because the final MATS rule had not yet been issued. 8 On December 21, 2011, EPA issued the final MATS rule, which has the effect of requiring ESPs for the 800 MW oil-fired units. 9 10 Consistent with the stipulation in Order No. 11-0083-FOF-EI, FPL transferred the construction costs for the Manatee Unit 2 ESP, 11 together with accumulated AFUDC, to ECRC-recoverable 12 accounts as part of its January 2012 accounting entries. 13

14 Q. Does this conclude your testimony?

15 A. Yes, it does.

1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		FLORIDA POWER & LIGHT COMPANY
3		TESTIMONY OF RANDALL R. LABAUVE
4		DOCKET NO. 120007-EI
5		August 1, 2012
6		
7	Q.	Please state your name and address.
8	Α.	My name is Randall R. LaBauve and my business address is 700 Universe
9		Boulevard, Juno Beach, Florida 33408.
10	Q.	By whom are you employed and in what capacity?
11	Α.	I am employed by Florida Power & Light Company (FPL) as Vice President of
12		Environmental Services.
13	Q.	Have you previously testified in this docket?
14	A.	Yes.
15	Q.	What is the purpose of your testimony in this proceeding?
16	Α.	The purpose of my testimony is to present for Commission review and
17		approval for recovery through the Environmental Cost Recovery Clause
18		(ECRC) several new environmental compliance activities: the Thermal
19		Discharge Standards Project, the Gopher Tortoise Relocations Project and
20		the Steam Electric Effluent Guidelines Revised Rule Project. All of these
21		projects were identified in FPL's List of New Projects filed July 10, 2012.
22		Additionally, I also present updates to FPL's approved NPDES Permit
23		Renewal Requirements and CAMR projects.

1	Q.	Have you prepared, or caused to be prepared under your direction,
2		supervision, or control, an exhibit in this proceeding?
3	Α.	Yes. I am sponsoring the following exhibits:
4		<ul> <li>RRL-5 - relevant excerpt from the Cape Canaveral Plant (PCC)</li> </ul>
5		State IWW Permit
6		RRL-6 - relevant excerpt from the Riviera Plant (PRV) NPDES
7		Permit
8		RRL-7 – new Gopher Tortoise Guidelines
9		• RRL-8 - relevant excerpt from the St. Lucie Plant (PSL) NPDES
10		Permit
11		
12		Thermal Discharge Standards Project
13		
13 14	Q.	Please describe the environmental law or regulation requiring the
	Q.	Please describe the environmental law or regulation requiring the Thermal Discharge Standards Project.
14	<b>Q.</b> A.	
14 15		Thermal Discharge Standards Project.
14 15 16		Thermal Discharge Standards Project. FPL power plants with once-through cooling water systems that were built
14 15 16 17		Thermal Discharge Standards Project. FPL power plants with once-through cooling water systems that were built before July 1, 1972 must meet a "narrative" thermal standard found in
14 15 16 17 18		Thermal Discharge Standards Project. FPL power plants with once-through cooling water systems that were built before July 1, 1972 must meet a "narrative" thermal standard found in Chapter 62-302.520(1) (a)-(c) F.A.C. This rule is implemented through the
14 15 16 17 18 19		Thermal Discharge Standards Project. FPL power plants with once-through cooling water systems that were built before July 1, 1972 must meet a "narrative" thermal standard found in Chapter 62-302.520(1) (a)-(c) F.A.C. This rule is implemented through the National Pollutant Discharge Elimination System (NPDES) program. See 33
14 15 16 17 18 19 20		Thermal Discharge Standards Project. FPL power plants with once-through cooling water systems that were built before July 1, 1972 must meet a "narrative" thermal standard found in Chapter 62-302.520(1) (a)-(c) F.A.C. This rule is implemented through the National Pollutant Discharge Elimination System (NPDES) program. See 33 U.S.C. Section 1342. Pursuant to the U.S. Environmental Protection
14 15 16 17 18 19 20 21		Thermal Discharge Standards Project. FPL power plants with once-through cooling water systems that were built before July 1, 1972 must meet a "narrative" thermal standard found in Chapter 62-302.520(1) (a)-(c) F.A.C. This rule is implemented through the National Pollutant Discharge Elimination System (NPDES) program. See 33 U.S.C. Section 1342. Pursuant to the U.S. Environmental Protection Agency's (EPA) approval, the Florida Department of Environmental

1 Facilities that cannot meet the FDEP narrative standard for thermal 2 discharges may apply for a "variance" (i.e. less stringent standards) under 3 Section 316(a) of the Federal Clean Water Act. Section 316(a) ensures that 4 thermal effluent limitations will assure protection and propagation of 5 balanced, indigenous population of shellfish, fish, and wildlife and provides 6 that thermal dischargers can be granted less stringent alternate thermal limits 7 than those imposed by a state program if the discharger can demonstrate that the current effluent limitations, based on water quality standards, are more 8 stringent than necessary to protect the aquatic organisms in the receiving 9 10 water body.

Prior to 2008, 316(a) variance determinations were conducted using guidance 12 13 from the EPA that was developed in 1977. If a variance from the state water quality standard for temperature was previously granted, facilities were not 14 required to provide additional information regarding thermal discharges in 15 their renewal application unless changes had been made to the thermal 16 loading in the plant discharge. In 2008, the EPA issued additional guidance 17 on this topic and, with the new guidance, the EPA has taken a much more 18 19 active role in granting variances, resulting in requests for expanded biological and thermal modeling/monitoring studies to justify the variances. 20

11

21

In addition, many plants that have once-through cooling water systems that discharge heated effluent and were originally deemed compliant with Chapter 62-302.520(1)(a)(c) have been under scrutiny by the FDEP. Oversight of these facilities is also implemented via the NPDES permitting process.

During recent permit renewals, the FDEP, much like the EPA with the 316(a) variances, has taken a more stringent approach to the required demonstration that substantial damage to aquatic organisms is not occurring in the receiving water bodies.

5

### Q. How does FPL plan to comply with these requirements?

6 Α. FPL's Cape Canaveral (PCC) Plant has been impacted by the EPA's more 7 stringent 316(a) variance guidance. The most recent version of the PCC State IWW Permit Number FL0001473-012 was issued February 11, 2011 8 9 and contains the requirement that a Plan of Study (POS) to justify a 316(a) variance be developed. The relevant excerpt from the PCC State IWW 10 Permit is included as Exhibit RRL-5. FPL submitted a proposed POS to the 11 FDEP in August 2011 and is currently awaiting comments from the EPA and 12 FDEP. FPL anticipates, based on the new EPA guidance and conversations 13 with the EPA Region 4 and FDEP that the scope of the POS may need to be 14 significantly expanded, which would result in substantial increases in 15 compliance costs. FPL's POS proposes baseline (pre-operational) and 16 operational nearfield seagrass and benthic sampling, augmented by ongoing 17 seagrass monitoring conducted by the St. Johns River Water Management 18 District, as well as ongoing fisheries-independent monitoring surveys 19 conducted by the Florida Fish and Wildlife Conservation Commission. If 20 approved by the agencies, the approach of using publicly available 21 information will result in significantly reduced costs compared to having to 22 generate all new information as requested in a January 2011 letter from EPA 23 24 to FPL. This approach has been successfully used by utilities in other states under the jurisdiction of the EPA Region 4 and resulted in substantially less 25

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1 onerous new sampling and analysis when renewing 316(a) variances. While 2 neither agency has yet approved FPL's proposed POS. FPL has begun 3 baseline sampling in parallel with its continuing efforts to secure approval. 4 Beginning the baseline sampling now is essential in order to stay on track for implementation of the proposal once approved. FPL intends to continue this 5 6 baseline sampling until the Canaveral Clean Energy Center (CCEC) is operational in 2013. After CCEC is operational, FPL plans to conduct 7 8 operational sampling in accordance with its proposal, in order to assess 9 impacts of the plant's operation.

10

11 The most recent version of the Riviera (PRV) plant NPDES Permit Number 12 FL0001546, issued August 28, 2010 contains language that could result in a 13 substantially higher level of effort to demonstrate compliance with 62-14 302.520(1) F.A.C. This permit requires a POS that may include baseline 15 biological sampling of the modernized plant and must address monitoring of 16 aquatic species, as necessary, as well as incorporating relevant existing data. 17 The relevant excerpt from the PRV NPDES is included as Exhibit RRL-6. 18 FPL intends to negotiate with the FDEP in 2012 to take a similar approach to 19 the POS that has been proposed for PCC.

Q. Did FPL begin conducting any thermal discharge studies before it
 petitioned for approval of this project?

A. Yes. Because of the need to conduct baseline sampling, FPL has begun
basic reconnaissance sampling at PCC. However, FPL is seeking recovery
only for the work that is conducted after it files its petition for Commission
approval of the project.

. 5

1 Q. What are the projected total O&M costs associated with this project?

A. FPL's preliminary estimate of O&M costs for this project is \$175,000 for 2012
and \$175,000 for 2013, which reflects activities needed to implement the
POS approach that FPL is proposing for the PCC and PRV sites. The actual
compliance costs incurred will depend on the scope of the final POS that are
approved for these plants. O&M activities are related to baseline biological
studies, other data collection and modeling for both facilities and are
expected to begin after August 1, 2012.

9 Q. What are the projected total capital costs associated with the project?

A. At present, FPL does not anticipate incurring capital costs. However, if
 studies determine that substantial environmental impacts are occurring,
 particularly at PCC, substantial capital expenditures could be required.

13 Q. How will FPL ensure that the costs incurred for this project are prudent
14 and reasonable?

15 A. Consistent with our standard practice for all consultant services 16 procurements, FPL will competitively bid all of the activities performed by 17 outside firms to ensure costs are prudently incurred. FPL will revise project 18 estimates as specific costs become available through consultant specific bids 19 and costs. FPL will continue to perform due diligence over the life of this 20 project to minimize costs.

21 Q. Is FPL recovering the costs of these activities through any other 22 mechanism?

23 A. No.

#### **Gopher Tortoise Relocations Project**

Q. Please describe the environmental law or regulation requiring this
 project.

1

2

Α. 5 The Gopher tortoise (Gopherus polyphemus) is a state-designated 6 threatened species, per Rule 68A-27.003(1)(d)3, F.A.C. -- Designation of 7 Endangered Species; Prohibitions, which states: "No person shall take, 8 attempt to take, pursue, hunt, harass, capture, possess, sell or transport any 9 gopher tortoise or parts thereof or their eggs, or molest, damage, or destroy gopher tortoise burrows, except as authorized by Commission permit or when 10 11 complying with Commission approved guidelines for specific actions which 12 may impact gopher tortoises and their burrows." Gopher tortoises have been creating burrows in the cooling pond embankments at FPL's Martin (PMR). 13 14 Manatee (PMT) and Sanford (PSN) power plants over time, as well as in the oil tank farm embankments at PMR and PMT. Gopher tortoise burrows must 15 be inspected and then filled as necessary to ensure the integrity of the 16 embankments. Filling burrows means that affected gopher tortoises must be 17 18 relocated.

#### 19 Q. How does FPL plan to comply with these requirements?

20 A. In 2008, the Florida Fish and Wildlife Conservation Commission provided new 21 gopher tortoise guidelines that have changed the permitting process for 22 relocations (i.e., an authorized gopher tortoise agent is now required to 23 conduct surveys and perform relocations and all tortoises now must be sent 24 to a recipient site). The new gopher tortoise guidelines are included as 25 Exhibit RRL-7. The embankments at PMT, PMR and PSN were surveyed

7.

from 2008-2011 by plant personnel and no burrows were found that appeared
to be compromising the integrity of the embankments. In March 2012,
however, surveys were conducted that found gopher tortoise burrows at PMT
that could compromise the embankment integrity. In order to fill the burrows
at PMT, the gopher tortoises need to be relocated by an authorized gopher
tortoise agent in order to comply with Rule 68A-27.003.

As part of normal plant maintenance, FPL conducts periodic surveys at all three sites to ensure that the integrity of the embankments is maintained, but this project is limited to recovery of costs associated with relocations that are required as a result of those surveys. Thus, when FPL plant personnel identify a gopher tortoise burrow requiring filling, an authorized gopher tortoise agent will be contracted to start the relocation process.

7

# 14 Q. Please describe the required activities associated with gopher tortoise relocations.

16 Α. In order to receive a permit for gopher tortoise relocations, an authorized 17 gopher tortoise agent must conduct a survey of the area in question. Once 18 they confirm that the burrow is that of a gopher tortoise, they can apply online 19 for the FWC Conservation Permit. Once the permit is received, the tortoises 20 may be captured via bucket traps, live traps, hand captured outside of 21 burrows, or excavated by hand shovel or backhoe. However, excavation can 22 only be used if it will not compromise the integrity of the embankment. After the tortoise is captured, it will be taken to an offsite, long-term, protected 23 24 recipient site.

1 Q. What are the projected total O&M costs associated with this project?

A. FPL cannot predict at this time the costs that it will incur for this project
beyond 2012, because the level of activity depends on how many, if any,
gopher tortoises require relocation in the future. To the extent that the
periodic surveys, which are part of normal plant maintenance activities,
identify additional tortoises requiring relocation in the future, FPL would then
incur additional relocation related site costs at that time. At this time, a
conservative estimate per tortoise needing relocation is \$2,500.

9 Q. What are the projected total capital costs associated with this project?

10 A. At present, FPL does not anticipate incurring capital costs to comply with the
11 requirements of this project.

12 Q. Has FPL estimated the 2012 and 2013 ECRC recoverable costs for the 13 proposed project ?

14 A. Yes. FPL projects that it will begin incurring costs for gopher tortoise
relocations in September 2012. FPL's O&M cost estimate for the relocations
at PMT is \$37,500 in 2012. As previously described, FPL cannot predict at
this time the costs that it will incur for this project beyond 2012. However, at
this time we estimate that \$37,500 of O&M will be spent for all three sites in
2013.

20 Q. How will FPL ensure that the costs incurred for the proposed project are21 prudent and reasonable?

A. Consistent with our standard practice for all consultant services
 procurements, FPL will competitively bid all of the activities performed by
 outside firms to ensure costs are prudently incurred. FPL will revise project
 estimates as specific costs become available through consultant specific bids

1		and costs. FPL will continue to perform due diligence over the life of this
2		project to minimize costs.
3	Q.	is FPL recovering the costs of these activities through any other
4		mechanism?
5	<b>A</b> . ′	No. As I previously stated in my testimony, plant personnel conduct surveys,
6		which are part of normal plant maintenance activities and are recovered
7		through base rates. However, this project is limited to recovery of costs
8		associated with relocations that are required as a result of those surveys.
9		
10		Steam Electric Effluent Guidelines Revised Rule Project
11		
12	Q.	Please describe the environmental law or regulation requiring this
13		prøject.
13 14	A.	project. Title 40 Code of Federal Regulations Part 423, which was promulgated under
	A.	
14	A.	Title 40 Code of Federal Regulations Part 423, which was promulgated under
14 15	A.	Title 40 Code of Federal Regulations Part 423, which was promulgated under the authority of the Federal Clean Water Act, limits the discharge of pollutants
14 15 16	A.	Title 40 Code of Federal Regulations Part 423, which was promulgated under the authority of the Federal Clean Water Act, limits the discharge of pollutants into navigable waters and into publicly owned treatment works by existing and
14 15 16 17	A.	Title 40 Code of Federal Regulations Part 423, which was promulgated under the authority of the Federal Clean Water Act, limits the discharge of pollutants into navigable waters and into publicly owned treatment works by existing and new sources of steam electric power plants. The current version of the rule
14 15 16 17 18	A.	Title 40 Code of Federal Regulations Part 423, which was promulgated under the authority of the Federal Clean Water Act, limits the discharge of pollutants into navigable waters and into publicly owned treatment works by existing and new sources of steam electric power plants. The current version of the rule was published in the Federal Register on November 19, 1982. On
14 15 16 17 18 19	A.	Title 40 Code of Federal Regulations Part 423, which was promulgated under the authority of the Federal Clean Water Act, limits the discharge of pollutants into navigable waters and into publicly owned treatment works by existing and new sources of steam electric power plants. The current version of the rule was published in the Federal Register on November 19, 1982. On September 15, 2009, the EPA announced that they would undertake
14 15 16 17 18 19 20 <sup>-</sup>	A.	Title 40 Code of Federal Regulations Part 423, which was promulgated under the authority of the Federal Clean Water Act, limits the discharge of pollutants into navigable waters and into publicly owned treatment works by existing and new sources of steam electric power plants. The current version of the rule was published in the Federal Register on November 19, 1982. On September 15, 2009, the EPA announced that they would undertake rulemaking to revise the rule because, "current regulations, which were
14 15 16 17 18 19 20 <sup>-</sup> 21	A.	Title 40 Code of Federal Regulations Part 423, which was promulgated under the authority of the Federal Clean Water Act, limits the discharge of pollutants into navigable waters and into publicly owned treatment works by existing and new sources of steam electric power plants. The current version of the rule was published in the Federal Register on November 19, 1982. On September 15, 2009, the EPA announced that they would undertake rulemaking to revise the rule because, "current regulations, which were issued in 1982, have not kept pace with changes that have occurred in the

1

#### Q. How does FPL plan to comply with these requirements?

A. The EPA has initiated revisions to Title 40 CFR 423 - Steam Electric Effluent
Guidelines, which set minimum standards for treatment of wastewater from
steam electric power plants. These revisions are directed primarily at waste
streams such as ash sluice water and scrubber wastewater from coal-burning
facilities, but there could be impacts to nuclear as well as oil and gas-burning
facilities.

8

9 The EPA visited FPL's Sanford Plant on October 7, 2009 and Manatee Plant 10 on November 16, 2011 to gain a better understanding as to how oil ash is 11 generated and how it is currently handled at oil-fired facilities. FPL explained 12 that, due to the nature of the oil ash and how it differs from coal ash, dry-13 handling of economizer and air-preheater oil ash is not practical. 14 Nevertheless, based on recent information obtained from the EPA, it appears 15 that the EPA has decided that oil ash contact water will likely be impacted by 16 the revisions to the guidelines and may require either dry handling of all ash, 17 or require oil ash contact water to be segregated from other waste streams 18 and not discharged to waters of the State. FPL is currently studying the 19 impact that this decision would have on its oil-burning facilities; particularly at 20 the Martin and Manatee plants, although also ensuring Turkey Point plant 21 (these will be the three remaining conventional boiler/oil burning plants in the 22 FPL fleet by the time the rule is final) is considered in these oil ash handling 23 scenarios. Results of these analyses will drive FPL's level of effort for 24 addressing this issue in the future.

1 For FPL's co-owned generating units at SJRPP and Plant Scherer, 2 compliance costs for handling of coal ash are likely to be significantly higher 3 than those units burning oil. No estimates are available at this time, but the 4 most significant costs would be associated with the conversion of the current 5 bottom ash and economizer ash sluicing systems to dry handling and the construction of a new treatment system for scrubber wastewater if required by 6 7 the final rule. Additionally, EPA's final designation of Coal Combustion 8 Residuals (CCRs) could significantly impact compliance costs for this rule. 9 Should the EPA designate CCRs as hazardous, costs associated with 10 materials product handling and treatment systems would likely result in 11 significant increases.

12

Other requirements that might appear in the draft and/or final rule that could
 impact FPL facilities would involve dechlorination systems for cooling water
 and disposal of wastes from combustion turbine compressors.

16

17 In the latter part of 2012, FPL will be conducting extensive sampling and 18 chemical analyses of the Manatee Plant oil ash and metal cleaning waste 19 effluent streams. Results from these analyses will be presented to the EPA 20 to demonstrate the difference between these types of waste streams and 21 waste streams from flue gas scrubbers and other coal ash related processes, 22 which are significantly more complex and difficult to treat prior to a discharge. 23 These analyses will also be used to develop cost estimates for segregating oil 24 ash contact water from other effluent streams and for developing a zero liquid 25 discharge system for those waste streams. FPL's goal is to convince the

1 EPA that oil ash handling effluent does not need to be regulated under the 2 same strict requirements that apply to coal ash handling effluent. If 3 successful, establishing that distinction will save FPL and its customers 4 hundreds of thousands or perhaps millions of dollars in compliance costs. 5 FPL anticipates that it will engage consultants to assist it in pursuing this goal. 6 FPL expects to have very preliminary cost estimates for the impact of 7 potential revisions to guidelines associated with oil ash handling on the Martin 8 and Manatee plants by the fall of 2012. Additionally, FPL plans to file 9 comments on the draft rule in 2013, which will advocate for the distinction 10 described above, in order to minimize the impact of potential compliance 11 costs. FPL is also working with The Utility Water Activity Group (UWAG), and 12 separately to ensure the best possible outcome regarding impacts to the 13 utility. The revised rule will be implemented on a plant-by-plant basis. It is 14 expected that after the final rule is issued in 2014, State IWW/NPDES 15 renewal permits will contain a compliance schedule to address the new steam 16 electric effluent guidelines requirements. Thus, many of the capital expenses 17 may occur in the 2018-2020 timeframe.

18 Q. What are the projected total O&M costs associated with this project?

A. In 2012, FPL expects to spend approximately \$5,000 conducting analyses of
oil ash related effluent streams to provide information for commenting on the
upcoming draft rule. In 2013, FPL expects to spend \$45,000 in contractor
fees to assist with developing and submitting comments on the draft rule.
O&M costs beyond 2013 will be associated with the operation of any oil ash
or coal ash related treatment/handling systems that are required by the rule.
Examples of potential expenses are flue gas scrubber and other wastewater

treatment and disposal, ash contact water treatment and disposal, among others. In addition, there could be requirements for other power plant waste streams that may be impacted by the new rule. Potential examples are dechlorination systems at facilities that currently chlorinate once-through cooling water and disposal of combustion turbine off-line washes, among others. It is very likely that these O&M costs, which will begin to be incurred in the 2018-20 time frame will be significant.

8 Q. What are the projected total capital costs associated with this project?

- 9 A. FPL anticipates that the capital costs, particularly for SJRPP will be
  10 significant, and may occur in the 2018-2020 timeframe. FPL will not know
  11 what those costs might be until the rule is final.
- 12 Q. Has FPL estimated the 2012 and 2013 ECRC recoverable costs for this
   13 project?
- 14 A. Yes. FPL projects that it will begin incurring costs for the Steam Electric
  15 Effluent Guidelines Revised Rule Project in August, 2012. FPL's cost
  16 estimate for the effluent sampling and analysis is \$5,000. In 2013, comments
  17 will be required for the draft rule at an estimated O&M cost of \$45,000.

18 Q. How will FPL ensure that the costs incurred for this project are prudent19 and reasonable?

A. Consistent with our standard practice for all consultant services
 procurements, FPL will competitively bid all of the activities performed by
 outside firms to ensure costs are prudently incurred. FPL will revise project
 estimates as specific costs become available through consultant specific bids
 and costs. FPL will continue to perform due diligence over the life of this
 project to minimize costs.

1 Q. Is FPL recovering the costs of these activities through any other
 2 mechanism?

3 A. No.

- 4
- 5 6

#### NPDES Permit Renewal Requirements Project - Update

7 Q. Please briefly discuss FPL's approved NPDES Permit Renewal
 8 Requirements Project.

9 A. The Federal Clean Water Act requires all point source discharges to 10 navigable waters from industrial facilities to obtain permits under the NPDES 11 program. See 33 U.S.C. Section 1342. Pursuant to the EPA's approval, the 12 FDEP implements the NPDES permitting program in Florida. Affected 13 facilities are required to apply for renewal of the 5-year-duration NPDES 14 permits prior to their expiration. In April 2009, the FDEP amended Rule 62-15 620.620 (3), F.A.C., requiring all wastewater discharge permits for major 16 facilities, including power plants, to contain whole effluent toxicity (WET) 17 limits. Additionally, the FDEP has required that facilities prepare a Storm 18 Water Pollution Prevention Plan (SWPPP) that conforms to Rule 62-620.100 19 (m), F.A.C. and 40 CFR Part 122.44(k) when the NDPES permits are 20 renewed. The purpose of the SWPPP is to identify possible pollutant sources 21 that can affect the water quality of stormwater and to set out best 22 management practices (BMPs) that, when implemented, will reduce or 23 eliminate any possible stormwater impacts. FPL has seven plants with 24 NPDES permits that have been renewed in the past few years with several 25 more scheduled for renewal in the next few years.

1

Q.

#### Please describe the requirement for the update to this project.

2 Α. The renewed NPDES permit for the St. Lucie plant (PSL), which became effective September 29, 2011, contains a requirement that PSL prepare, 3 4 submit and conduct a Total Residual Oxidants (TRO) Plan of Study (TROPOS). The relevant excerpt from the PCC NPDES Permit is included as 5 6 Exhibit RRL-8. Because the renewed NPDES permit was not issued until late 7 September last year, FPL did not have an opportunity to reflect the projected 8 costs of complying with the TROPOS requirement in its 2012 ECRC 9 projection filing.

10

11 The purpose of the TROPOS is to demonstrate that discharges from the PSL 12 cooling water system meet the States' Class III water quality standard of 0.01 13 mg/l for total residual oxidants. In the previous permit, PSL had to meet a 14 limit of 0.1 mg/l at the Point of Discharge (POD), which is at the end of the 15 plant's discharge canal before the effluent is discharged to the Atlantic Ocean 16 via diffusers. With the TROPOS, PSL will demonstrate that meeting the 17 previous 0.1 mg/l TRO limit at the POD is equivalent to meeting the 0.01 mg/l 18 Class III water guality standard at the actual discharge point in the Atlantic 19 Ocean.

20 Q.

How will the TROPOS be completed?

21 Α. FPL retained a consultant to prepare and submit the TROPOS to the FDEP 22 for approval. Following FDEP approval, another consultant will be selected 23 via the bidding process to conduct the TROPOS.

1 Q. Please describe the work to be undertaken by the contractor that is 2 conducting the TROPOS.

A. The TROPOS has not received final approval by the FDEP at this time.
However, based on submittals of the initial TROPOS proposal on December
27, 2011 and subsequent comments and conversations with the FDEP, the
final plan is expected to be approved by late September of 2012. At that
time, a consultant will conduct the TROPOS, which includes a dye study,
TRO decay study, a plant-level verification study and a final report over a 25month period.

10 Q. What are the projected total O&M costs associated with this update?

A. FPL expects to incur total O&M costs of approximately \$140,000 to complete
the TROPOS.

13 Q. Has FPL estimated the 2012-2013 O&M costs associated with this
14 update?

A. Yes. FPL projects spending \$20,000 in 2012 and \$50,000 in 2013 for O&M
costs associated with a dye study, a TROPOS decay study, and a plant-level
verification study.

18 Q. What are the projected total capital costs associated with this update?

A. If the TROPOS demonstration is successful, there will be no capital costs associated with this update. However, per the NPDES Permit requirement, if the TROPOS fails to demonstrate that the discharge from the diffusers meets the TRO Class III water Quality Standard, PSL must prepare a feasibility study to evaluate engineering options to achieve the water quality standard. The preferred solution, which would most likely include capital costs, must be implemented within 24 months of FDEP approval. This would likely be in the

2017-2018 time frame.

# 2 Q. How will FPL ensure that the costs incurred for this update are prudent 3 and reasonable? 4 A. Consistent with our standard practice for all contractor services

5 procurements, FPL will competitively bid all of the activities performed by 6 outside firms to ensure costs are prudently incurred. FPL will revise project 7 estimates as specific costs become available through contractor specific bids 8 and costs. FPL will continue to perform due diligence over the life of this 9 project to minimize costs.

10 Q. Is FPL recovering the cost of this update through any other
11 mechanism?

- 12 A. No.
- 13

1

14

#### CAMR Compliance Project - Update

15

#### 16 Q. Why does FPL propose to expand the existing CAMR project?

17 A. In FPL's August 4, 2006 projections filing for its CAMR project, FPL identified that the co-benefits option for mercury control at SJRPP would have been the 18 lowest cost alternative for compliance with CAMR at that time. 19 The installation of Selective Catalytic Reduction (SCR) that was planned at that 20 21 time for the SJRPP units for compliance with with CAIR would allow the 22 existing scrubbers on these units to increase the capture of mercury as a co-23 benefit to the primary focus of reducing NOx and SO2 emissions. FPL and 24 co-owner JEA believed that emission reduction from co-benefits would have 25 allowed SJRPP to meet the Phase I of CAMR emission limits. At that time we

also recognized that FPL would have to evaluate the need for additional
controls to meet the more stringent 2018 Phase II compliance limits of CAMR
at a later date. On February 8, 2008, the D.C. Circuit Court vacated EPA's
CAMR, instructing the agency to propose a new rule that conforms to the
court's opinion. With the vacatur of CAMR, FPL and JEA concluded that a
further review of SJRPP's Hazardous Air Pollutants (HAPs) would have to
wait until EPA proposed a CAMR replacement rule.

8

9 On December 16, 2011, EPA finalized its Mercury and Air Toxics Standards 10 (MATS) rule as a replacement for CAMR under 40 CFR Parts 60 and 63 to 11 meet its obligation under Section 112 for the control of HAP emissions. The 12 MATS rule establishes performance standards for HAPs emissions from coal and oil-fired electric steam generating units including a mercury emission 13 14 standard that applies only to coal-fired units. In response to the final MATS 15 rule, FPL, and our ownership partner JEA, have identified the need for 16 additional information regarding emission of HAPs from the SJRPP units. An engineering and economic study for MATS compliance at SJRPP is now 17 18 being initiated to develop a lowest cost alternative compliance plan. The 19 engineering study will evaluate cost and performance options of emission 20 controls available to meet the MATS specifications while maintaining or 21 improving fuel diversity options.

Q. Please describe the costs which FPL currently recovers for compliance
with air toxics rules under the CAMR project.

A. FPL currently recovers its share of costs associated with the operation and maintenance of the baghouse/sorbent injection system on Scherer Unit 4,

and the Continuous Mercury Emission Monitors on Scherer Unit 4 and
 SJRPP Units 1 & 2. Considering that the MATS rule has replaced CAMR,
 FPL believes that it is appropriate to rename the CAMR Project (Project 33)
 to now be referred to as the MATS Project.

5 Q. Which activities does FPL intend to include in the proposed expansion 6 of the MATS project?

A. FPL intends to include only those costs for the environmental compliance
engineering study for SJRPP at this time. FPL has adjusted its 2012 MATS
O&M projections to include the estimated \$28,000 cost for its ownership
share of the engineering study. However, in the future FPL intends to present
under the MATS project for the Commission's review and approval those
costs which FPL determines to be necessary for compliance at SJRPP and
Scherer with the MATS rule.

14 Q. Is FPL recovering costs associated with the new MATS engineering
15 study in any other way?

16 A. No. FPL neither included costs the SJRPP environmental compliance
17 engineering study under any other ECRC project nor under base rates.

18 Q. Does this conclude your testimony?

19 A. Yes.

### APPENDIX I

### ENVIRONMENTAL COST RECOVERY COMMISSION FORMS 42-1E THROUGH 42-9E

### JANUARY 2012 - DECEMBER 2012 ACTUAL/ESTIMATED TRUE-UP

1

TJK-2 DOCKET NO. 120007-EI EXHIBIT PAGES 1-72

#### Form 42-1E

#### <u>Florida Power & Light Company</u> Environmental Cost Recovery Clause Calculation of the Actual/Estimated True-up for the period January 2012 through December 2012

#### Line No.

-

1

1	Over/(Under) Recovery for the Current Period (Form 42-2E Page 2 of 2, Line 5)	\$	(397)
2	Interest Provision (Form 42-2E Page 2 of 2, Line 6)	\$	8,018
3	Sum of Current Period Adjustments (Form 42-2E, Page 2 of 2, Line 10)	\$	-
4	Actual/Estimated True-up to be refunded/(recovered) in January 2013 through December 2013	S	7,620

2

() Reflects Underrecovery

Form 42-2E Page 1 of 2

Florida Power & Light Company Environmental Cost Recovery Clause Calculation of the Actual/Estimated True-up Amount for the Period January 2012 through December 2012

Line No.		ACTUAL January	ACTUAL February	ACTUAL March	ACTUAL April	ACTUAL May	ACTUAL
1	ECRC Revenues (net of Revenue Taxes)	\$13,222,460	\$11,667,373	\$12,547,706	\$13,594,989	\$13,868,057	\$16,281,152
2	True-up Provision (Order No. PSC-11-0553-FOF-EI)	1,145,425	1,145,425	1,145,425	1,145,425	1,145,425	1,145,425
3	ECRC Revenues Applicable to Period (Lines 1 + 2)	14,367,885	12,812,798	13,693,131	14,740,414	15,013,482	17,426,577
4	Jurisdictional ECRC Costs a - O&M Activities (Form 42-5E, Line 9) b - Capital Investment Projects (Form 42-7E, Line 9) c - Total Jurisdictional ECRC Costs	2,043,067 12,824,620 14,867,687	1,417,788 12,993,914 14,411,702	1,475,729 13,029,463 14,505,191	2,029,427 13,040,002 15,069,429	1,978,052 13,065,653 15,043,705	2,069,485 13,269,899 15,339,384
5	Over/(Under) Recovery (Line 3 - Line 4c)	(499,802)	(1,598,904)	(812,060)	(329,015)	(30,223)	2,087,193
6	Interest Provision (Form 42-3E, Line 10)	869	1, <b>12</b> 1	780	669	658	594
7	Prior Periods True-Up to be (Collected)/Refunded in 2011	13,745,099	12,100,740	9,357,533	7,400,828	5,927,057	4,752,067
	a - Deferred True-Up from 2011 (Form 42-1A, Line 7) Final True-up filed April 1, 2012	976,912	976,912	976,912	976,912	976,912	976,912
8	True-Up Collected /(Refunded) (See Line 2)	(1,145,425)	(1,145,425)	(1,145,425)	(1,145,425)	(1,145,425)	(1,145,425)
9	End of Period True-Up (Lines 5+6+7+7a+8)	13,077,652	10,334,445	8,377,740	6,903,969	5,728,979	6,671,341
10	Adjustments to Period Total True-Up Including Interest					·	
11	End of Period Total Net True-Up (Lines 9+10)	\$13,077,652	\$10,334,445	\$8,377,740	\$6,903,969	\$5,728,979	\$6,671,341

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Form 42-2E Page 2 of 2

## Florida Power & Light Company

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Environmental Cost Recovery Clause Calculation of the Actual/Estimated True-up Amount for the Period January 2012 through December 2012

Line No.	ary 2012 through December 2012	ESTIMATED	ESTIMATED August	ESTIMATED September	ESTIMATED October	ESTIMATED November	ESTIMATED December	End of Period Amount
1	ECRC Revenues (net of Revenue Taxes)	\$16,878,102	\$16,811,288	\$16,160,531	\$15,127,976	\$13,557,576	\$13,288,310	\$173,005,520
2	True-up Provision (Order No. PSC-11-0553-FOF-EI)	1,145,425	1,145,425	1,145,425	1,145,425	1,145,425	1,145,425	13,745,099
3	ECRC Revenues Applicable to Period (Lines 1 + 2)	18,023,527	17,956,713	17,305,956	16,273,401	14,703,001	14,433,735	186,750,619
4	Jurisdictional ECRC Costs a - O&M Activities (Form 42-5E, Line 9) b - Capital Investment Projects (Form 42-7E, Line 9) c - Total Jurisdictional ECRC Costs	2,523,403 13,515,627 16,039,030	1,978,187 13,816,212 15,794,398	2,075,633 14,093,335 16,168,968	2,235,653 14,175,210 16,410,863	2,292,878 14,203,232 16,496,110	2,343,093 <u>14,261,454</u> 16,604,547	24,462,397 162,288,620 186,751,017
5	Over/(Under) Recovery (Line 3 - Line 4c)	1,984,497	2,162,315	1,136,988	(137,462)	(1,793,109)	(2,170,812)	(397)
6	Interest Provision (Form 42-3E, Line 10)	591	668	710	657	481	220	8,018
7	Prior Periods True-Up to be (Collected)/Refunded in 2011	5,694,429	6,534,093	7,551,651	7,543,924	6,261,694	3,323,641	13,745,099
	a - Deferred True-Up from 2011 (Form 42-1A, Line 7) Final True-up filed April 1, 2012	976,912	976,912	976,912	976,912	976,912	976,912	
8	True-Up Collected /(Refunded) (See Line 2)	(1,145,425)	(1,145,425)	(1,145,425)	(1,145,425)	(1,145,425)	(1,145,425)	(13,745,099)
9	End of Period True-Up (Lines 5+6+7+7a+8)	7,511,005	8,528,563	8,520,835	7,238,606	4,300,553	984,536	7,620
10	Adjustments to Period Total True-Up Including Interest							
11	End of Period Total Net True-Up (Lines 9+10)	\$7,511,005	\$8,528,563	\$8,520,835	\$7,238,606	\$4,300,553	\$984,536	\$7,620

Form 42-3E Page 1 of 2

Florida Power & Light Company Environmental Cost Recovery Clause Calculation of the Actual/Estimated True-up Amount for the Period January 2012 through December 2012

Interest Provision (in Dollars)

#### Line No.

Οï

1 Beginning True-Up Amount (Form 42-2E, Lines 7 + 7a + 10)

- 2 Ending True-Up Amount before Interest (Line 1 + Form 42-2E, Lines 5 + 8)
- 3 Total of Beginning & Ending True-Up (Lines 1 + 2)
- 4 Average True-Up Amount (Line 3 x 1/2)
- 5 Interest Rate (First Day of Reporting Month)
- 6 Interest Rate (First Day of Subsequent Month)

7 Total of Beginning & Ending Interest Rates (Lines 5 + 6)

8 Average Interest Rate (Line 7 x 1/2)

9 Monthly Average Interest Rate (Line 8 x 1/12)

10 Interest Provision for the Month (Line 4 x Line 9)

January	February	March	April	May	June
\$14,722,011	\$13,077,652	\$10,334,445	\$8,377,740	\$6,903,969	\$5,728,979
13,076,784	10,333,324	8,376,960	6,903,300	5,728,321	6,670,747
\$27,798,795	\$23,410,976	\$18,711,405	\$15,281,040	\$12,632,290	\$12,399,727
\$13,899,397	\$11,705,488	\$9,355,702	\$7,640,520	\$6,316,145	\$6,199,863
0.03000%	0.12000%	0.11000%	0.09000%	0.12000%	0.13000%
0.12000%	0.11000%	0.09000%	0.12000%	0.13000%	0.10000%
0.15000%	0.23000%	0.20000%	0.21000%	0.25000%	0.23000%
0.07500%	0.11500%	0.10000%	0.10500%	0.12500%	0.11500%
0.00625%	0.00958%	0.00833%	0.00875%	0.01042%	0.00958%
\$869	\$1,121	\$780	\$669	\$658	\$594

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#### Form 42-3E Page 2 of 2

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#### Florida Power & Light Company Environmental Cost Recovery Clause Calculation of the Actual/Estimated True-up Amount for the Period January 2012 through December 2012

Interest Provision (in Dollars)

Line No.		July	August	September	October	November	December	End of Period Amount
1	Beginning True-Up Amount (Form 42-2E, Lines 7 + 7a + 10)	\$6,671,341	\$7,511,005	\$8,528,563	\$8,520,835	\$7,238,606	\$4,300,553	N/A
2	Ending True-Up Amount before Interest (Line 1 + Form 42-2E, Lines 5 + 8)	7,510,414	8,527,895	8,520,125	7,237,949	4,300,072	984,316	N/A
3	Total of Beginning & Ending True-Up (Lines 1 + 2)	\$14,181,755	\$16,038,899	\$17,048,688	\$15,758,784	\$11,538,678	\$5,284,870	N/A
4	Average True-Up Amount (Line 3 x 1/2)	\$7,090,878	\$8,019,450	\$8,524,344	\$7,879,392	\$5,769,339	\$2,642,435	N/A
5	Interest Rate (First Day of Reporting Month)	0.10000%	0.10000%	0.10000%	0.10000%	0.10000%	0.10000%	N/A
6	Interest Rate (First Day of Subsequent Month)	0.10000%	0.10000%	0.10000%	0.10000%	0.10000%	0.10000%	N/A
7	Total of Beginning & Ending Interest Rates (Lines 5 + 6)	0.20000%	0.20000%	0.20000%	0.20000%	0.20000%	0.20000%	N/A
8	Average Interest Rate (Line 7 x 1/2)	0.10000%	0.10000%	0.10000%	0.10000%	0.10000%	0.10000%	N/A
9	Monthly Average Interest Rate (Line 8 x 1/12)	0.00833%	0.00833%	0.00833%	0.00833%	0.00833%	0.00833%	N/A
10	Interest Provision for the Month (Line 4 x Line 9)	\$591	\$668	\$710	\$657	\$481	\$220	\$8,018

Form 42-4E

## Florida Power & Light Company Environmental Cost Recovery Clause Calculation of the Actual/Estimated True-Up Amount for the Period January 2012 - December 2012

Variance Report of O&M Activities (in Dollars)

	(1) Actual	(2) Original	(3) Varian	(4) ce
Line	Estimated	Projection	Amount	Percent
1 Description of O&M Activities				
1 Air Operating Permit Fees	\$506,168	\$1,290,000	(\$783,832)	-60.8%
3a Continuous Emission Monitoring Systems 5a Maintenance of Stationary Above Ground Fuel Storage Tanks	\$606,214	\$754,456	(\$148,242)	-19.6%
8a Oil Spill Cleanup/Response Equipment	\$1,726,273 \$403,061	\$2,192,743	(\$466,470)	-21.3%
13 RCRA Corrective Action	\$24,000	\$212,600 \$100,000	\$190,461	89.6% -76.0%
14 NPDES Permit Fees	\$74,325	\$115,200	(\$76,000) (\$40,875)	-76.0%
17a Disposal of Noncontainerized Liquid Waste	\$161,252	\$221,000	(\$59,748)	-27.0%
19a Substation Pollutant Discharge Prevention & Removal - Distribution	\$1,550,490	\$2,819,714	(\$1,269,224)	-45.0%
19b Substation Pollutant Discharge Prevention & Removal-Transmission	\$962,338	\$985,429	(\$23,091)	-2.3%
19c Substation Pollutant Discharge Prevention & Removal - Costs Included in Ba Rates	ase (\$560,232)	(\$560,232)	\$0	0.0%
NA Amortization of Gains on Sales of Emissions Allowances	(\$598,910)	(\$603,113)	\$4,202	-0.7%
22. Pipeline Integrity Management	\$429,792	\$476,500	(\$46,708)	-9.8%
23 SPCC-Spill Prevention, Control & Countermeasures	\$1,133,775	\$953,190	\$180,585	18.9%
24 Manatee Reburn	\$1,158,659	\$900,000	\$258,659	28.7%
25 Port Everglades ESP	\$331,251	\$640,000	(\$308,749)	-48.2%
27 Lowest Quality Water Source	\$322,942	\$329,710	(\$6,768)	-2.1%
28 CWA 316(b) Phase II Rule	\$72,018	\$1,183,091	(\$1,111,073)	-93.9%
29 SCR Consumables	\$494,143	\$350,000	\$144,143	41.2%
30 HBMP	\$35,653	\$35,652	\$1	0.0%
31 CAIR Compliance	\$3,531,009	\$4,652,000	(\$1,120,991)	-24.1%
32 BART Compliance	\$15,900	\$0	\$15,900	NA
33 MATS Project	\$3,339,903	\$3,291,000	\$48,903	1.5%
34 St. Lucie Cooling Water System Inspection & Maintenance	(\$0)	\$0	(\$0)	NA
35 Martin Plant Drinking Water System Compliance	\$20,001	\$20,000	\$1	0.0%
36 Low-Level Radioactive Waste Storage	\$0	\$0	\$0	NA
37 DeSoto Next Generation Solar Energy Center	\$981,097	\$1,108,836	(\$127,739)	~11.5%
38 Space Coast Next Generatino Solar Energy Center	\$291,520	\$597,856	(\$306,336)	-51.2%
39 Martin Next Generation Solar Energy Center	\$3,539,059	\$2,479,444	\$1,059,615	42.7%
40 Greenhouse Gas Reduction Program	\$1,500	\$60,000	(\$58,500)	-97.5%
41 Manatee Temporary Heating System Project	\$629,999	\$1,335,073	(\$705,074)	-52.8%
42 Turkey Point Cooling Canal Monitoring Plan	\$2,565,000	\$1,320,000	\$1,245,000	94.3%
43 NESHAP Information Collection Request Project	\$0	\$0	\$0	
44 Martin Plant Barley Barber Swamp fron Mitigation Project				NA
	\$100	\$2,250	(\$2,150)	-95.6%
45 800 MW Unit ESP Project	\$433,504	\$0	\$433,504	NA
46 St. Lucie Cooling Water Discharge Monitoring Project	\$421,990	\$998,185	(\$576,195)	-57.7%
47 NPDES Permit Renewal Requirements	\$100,676	\$73,600	\$27,076	36.8%
48 Industrial Boiler MACT Project	\$1,000	\$41,453	(\$40,453)	-97.6%
49 Thermal Discharge Standards	\$175,000	\$0	\$175,000	NA
50 Steam Electric Effluent Guidelines Revised Rule Project	\$5,000	\$0	\$5,000	NA
51 Gopher Tortoise Relocations	\$37,500	\$0	\$37,500	NA
2 Total O&M Activities	\$24,922,971	\$28,375,637	(\$3,452,666)	-12.2%
3 Recoverable Costs Allocated to Energy	\$13,631,132	\$14,477,271	(\$846,139)	-5.8%
4a Recoverable Costs Allocated to CP Demand	\$10,021,465	\$11,358,768	(\$1,337,304)	-11.8%
4b Recoverable Costs Allocated to GCP Demand	\$1,270,374	\$2,539,598	(\$1,269,224)	-50.0%
Notee				

Notes:

Column(1) is the 12-Month Totals on Form 42-5E Column(2) is the approved projected amount in accordance with FPSC Order No. PSC-11-0553-FOF-EI Column(3) = Column(1) - Column(2) Column(4) = Column(3) / Column(2)

## Florida Power & Light Company Environmental Cost Recovery Cleuse Calculation of the Actual / Estimated Amount for the Period January 2012 - December 2012

O&M Activities (in Dollars)

Line # Project #	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUN	6-Month Sub-Total
1 Description of O&M Activities							
1 Air Operating Permit Fees	\$ 67,322	\$ (10,997)	\$ 64,001	\$ 64.001	\$ 63,999	\$ 5,921	\$ 254,247
3a Continuous Emission Monitoring Systems	131,595	7,689	38,178	40,342	24,062	37,871	279,737
5a Maintenance of Stationary Above Ground Fuel Storage Tanks	336	(803)	200,601	196,834	603,605	241,999	1,242,572
8a Oil Spill Cleanup/Response Equipment	8,358	10,563	15,222	14,687	13,113	14,772	78,914
13 RCRA Corrective Action	0	0	0	0	0	0	0
14 NPDES Permit Fees	101,800	(15,282)	2,319	(5,342)		(0,636)	
17a Disposal of Noncontainerized Liquid Waste	818	285	825	123	0	0	2,051
19a Substation Pollutant Discharge Prevention & Removal - Distribution	58,824	204,124	77,949	66,522	197,900	69,171	694,490
19b Substation Pollutant Discharge Prevention & Removal - Transmission 19c Substation Pollutant Discharge Prevention & Removal - Costs Included in Base Rates	(57,709) (46,686)		52,676 (46,686)	142,329 (46,686)	259,885 (46,686)	53,077 (46,686)	559,342 (280,116)
NA Amortization of Gains on Sales of Emissions Allowances	(49,790)	(49,790)	(49,790)	(50,223)	(49,953)	(49,909)	(289,455)
22 Pipeline integrity Management	44,959	Û	16,000	82,908	823	6,578	131,267
23 SPCC - Spill Prevention, Control & Countermeasures	46,605	103,254	130,464	337,980	(246,162)	141,058	513,180
24 Manatee Reburn	206,824	19,375	76,819	123,400	75,841	36,721	538,979
25 Pt. Everglades ESP Technology	30,753	32,216	14,028	20,474	19,161	26,982	143,633
27 Lowest Quality Water Source	26,392	25,769	25,784	24,673	25,202	25,500	153,320
28 CWA 316(b) Phase II Rule	2,005	2,006	51,968	2,330	2,382	5,328 35,791	66,019 351,551
29 SCR Consumables 30 HBMP	79,045 5,645	72,866 1,602	70,689 1,802	55,881 1,802	47,278	3,083	15,934
31 CAIR Compliance	145,959	99,280	94,126	100,484	131,311	131,305	702,466
32 BART Compliance	0	0	04,120	100,101	0	6,468	6,465
33 MATS Project	311,355	344,830	80,220	266,169	364,289	785,984	2,152,847
34 St. Lucie Cooling Water System inspection & Maintenance	(4,693)	-	(1,959)	592	(19,148)	(641)	(8,275)
35 Martin Plant Drinking Water System Compliance	1,839	0	1,839	1,839	1,839	1,839	9,195
36 Low-Level Radioactive Waste Storage	0	0	0	0	0	. 0	0
37 DeSolo Next Generation Solar Energy Center	75,668	59,302	78,589	62,773	65,161	62,997	404,489
38 Space Coast Next Generation Solar Energy Center	14,119	16,450	29,618	14,092	13,872	B,799	96,949
39 Martin Next Generation Solar Energy Center	396,001	246,955	240,185	223,998	370,538	399,643	1,677,320
40 Greenhouse Gas Reduction Program	1,500	0	0	0	0	0	1,500
41 Manatae Temporary Heating System Project	69,586	94,200	14,924	2,263	32,869	14,348	228,190
42 Turkey Point Cooling Canal Monitoring Plan	381,030	95,158	165,270	324,391	17,804	31,653	1,015,314
43 NESHAP Information Collection Request Project	0	0	0	0	0	0	0
44 Martin Ptant Barley Barber Swamp fron Mitigation Project	0	0	0	0	0	0	D
45 BOO MW Unit ESP Project	0	Q	0	0	0	0	0
46 St. Lucie Cooling Water Discharge Monitoring Project	33,329	0	41,140	6,896	29,015 14,651	39,718 8,611	150,098 56,991
47 NPDES Permit Renewal Requirements	0	3,130 N	17,322	13,277 0	100,01	a,oi i 0	56,691 D
48 Industrial Boller MACT Project	0	0	0	0	0	c	0
49 Thermal Discharge Standards 50 Steam Electric Effluent Guidelines Revised Rule Project	ő	0	ő	0	0	ů	ő
51 Gopher Tortolse Relocations	ŏ	0	ŏ	Ď	ő	ō	ő
2 Total of O&M Activities	\$ 2,082,800	\$ 1,442,358	\$ 1,504,122	\$ 2,069,006	\$ 2,014,076	\$ 2,109,345	\$ 11,221,704
3 Recoverable Costs Allocated to Energy	\$ 1,378,128	\$ 722,273	\$ 566,769	\$ 971,343	\$ 757,990	\$ 1,080,193	\$ 5,496,696
4a Recoverable Costs Allocated to CP Demand	\$ 669,190	\$ 539,303	\$ 862,747	\$ 1,054,484	\$ 1,081,529	\$ 963,322	\$ 5,170,576
4b Recoverable Costs Allocated to GCP Demand	\$ 35,481	\$ 180,761	\$ 54,606	\$ 43,179	\$ 174,557	\$ 65,828	\$ 554,432
5 Retail Energy Jurisdictional Factor	98.08128%		96,08128%	98.08128%		98.08128%	
6a Retail CP Demand Jurisdictional Factor	98,01395%		96.01 395%	98.01395%		98.01395%	
6b Retail GCP Demand Jurisdictional Factor		100.00000%	100.00000%	100.00000%		100.00000%	
7 Jurisdictional Energy Recoverable Costs (A)		\$ 708,415				\$ 1,059,467	
8a Jurisdictional CP Demand Recoverable Costs (B)	\$ 655,900					• •	\$ 5,067,886
• • •			1		\$ 174,557		
9 Total Juriadictional Recoverable Costs for O&M Activities (Lines 7 + 8)	<u>a 2.043.067</u>	<u>\$ 1.417.788</u>	<u>\$ 1.475.729</u>	<u>1 2.029.427</u>	<u>a 1.9/8.052</u>	<u>a 2.069.465</u>	2.11.013.548
Notes: (A) Line 5 time 5 (B) Line 4 at 1 Line 5a							

ø (B) Line 4a x Line 6a (C) Line 4b x Line 6b

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Totals may not add due to rounding.

Form 42-5E Page 1 of 2

#### Florida Power & Light Gompany Environmental Cost Recovery Clause Calculation of the Actual / Editmated Amount for the Period January 2012 - December 2012

O&M Activities (in Dollare)

Project #	Estimated JUL	Estimeted AUG	Estimated SEP	Estimated DCT	Estimated NOV	Estimated DEC	6-Month Sub-Total	12-Month Total		GCP Demand	20. Energy
Description of O&M Activities											
1 Air Operating Permit Fees	\$ 40,577	\$ 42,249	\$ 42,249	\$ 42,249	\$ 42,248	\$ 42,349	\$ 251,821	\$ 506,168		4	506,
3a Continuous Emission Monitoring Systems	129,194	26,846	33,773	25,335	29,702	81,628	328,477	806,214			606,
5a Maintenance of Stationary Above Ground Fuel Storage Tanks	351,400	200	200	70,200	60,200	1,501	483,701	1,728,273	1,726,273		
8a Oli Spiil Cleanup/Response Equipment	49,100	99,100	93,100	61,003	18,850	8,994	326,147	403,081			403,
13 RCRA Corrective Action	0	0	0	8,000	8,000	8,000	24,000	24,000	24,000		
14 NPDES Permit Feee	(169)	0	0	0	0	0	(159)	74,325	74,325		
17a Disposal of Noncontainerized Liquid Weste	0	36,000	33,201	30,000	60,000	a	159,201	101,252			161
19a Substation Poliutant Discharge Prevention & Removal - Distribution	106,500	108,500	118,500	168,500	168,500	183,500	858,000	1,550,490		1,550,490	
19b Substation Pollutant Discharge Prevention & Removal - Transmission	64,680	54,666	54,668	74,666	89,666	74,666	402,996	962,338	868,312		74
19c. Substation Pollutant Discharge Prevention & Removal - Costs included in Base Rates	(46,666)	(48,696)	(48,686)	(40,686)		(46,688)	(280,118)	(580,232)	(268,669)	(260,116)	(21
NA Amortization of Gains on Sales of Emissions Allowances	(49,909)	(49,809)	(49,909)	(49,909)	(49,909)	(49,909)	(299,456)	(508,910)			(598
22 Pipeline integrity Management	25,000	9,828	122,000	141,695	0	0	298,526	429,792	429,792		
23 SPCC - Spill Prevention, Control & Countermeasures	242,411	64,425	64,725	71,601	77,841	99,692	620,595	1,133,775	1 133 775		
24 Manates Reburn	61,614	41,667	35,000	41,667	250,251	169,461	619,660	1,158,659			1,15
25 Pt. Everglades ESP Technology	22,855	32,469	32,468	32,468	32,376	34,981	187,617	331,251			33
27 Lowest Quality Water Source	29,453	27,478	27,476	27,478	27,478	30,265	169,622	322,942	322,942		
28 CVVA 316(b) Phase II Ruis	1,000	1,000	1,000	1,000	1,000	1,000	8,000	72,018	72,018		
29 SCR Consumables	22,997	22,997	22,997	22,997	22,997	17,607	132,592	494,143			49-
30 HBMP	4.534	2,287	2,297	2,971	4,649	2,971	19,719	35,653	35,653		
31 CAIR Compliance	482,805	462,960	482,980	462,960	462,258	434,602	2,828,543	3,531,009			3,53
32 BART Compliance	0	4,532	0	4,900	0	0	9,432	15,900			1
33 MATS Project	280,659	175,398	175,750	175,750	175,750	203,751	1,187,058	3,339,903			3,33
34 St. Lucle Cooling Water System Inspection & Maintenance	8,276	0	0	0	0	0	8,278	(0)	(0)		
35 Martin Plant Drinking Water System Compliance	1,605	1,800	1,600	1,800	1,600	1,000	10,805	20,001	20,001		
36 Low-Level Radioactive Waste Storage	0	0	0	o	0	0	0	D	D		
37 DeSoto Next Generation Solar Energy Center	113,410	98,275	112,475	81,742	86,642	83,863	576,607	981,097	981,097		
38 Space Coast Next Generation Soler Energy Center	26,941	35,1P1	36,141	27,021	25,941	43,335	194,570	291,520	291,520		
39 Martin Next Generation Solar Energy Canter	336,104	261,104	261,104	261,104	261,104	281,218	1,681,738	3,539,059	3,539,059		
40 Greenhouse Gas Reduction Program	0	0	0	0	0	0	0	1,500			1
41 Manatee Temporary Heating System Project	5,752	1,060	40,395	69,976	108,804	157,822	401,809	629,999			623
42 Turkey Point Cooling Canal Monitoring Plan	258,280	258,290	258,280	258,280	258,260	256,266	1,549,686	2,565,000			2,565
43 NESKAP Information Collection Request Project	0	0	D	0	0	0	0	C			
44 Martin Plant Barley Barber Swamp Iron Mitigation Project	0	0	0	0	C	100	100	100	100		
45 BOD MW Unit ESP Project	D	65,701	66,701	86,701	86,701	86,700	433,504	433,504			433
46 St. Lucia Cooling Water Discharge Monitoring Project	11,334	96,654	9,715	45,473	9,715	95,801	271,692	421,990	421,990		
47 NPDES Parmit Renewal Requirements	0	7,400	0	6,285	20,000	10,000	43,685	100,676	100,676		
48 Industrial Boller MACT Project	o	1,000	0	0	0	0	1,000	1,000	1,000		
49 Thermal Discharge Standards	0	25,000	25,000	50,000	25,000	50,000	175,000	175,000	175,000		
50 Steam Electric Effluent Guidelines Revised Rule Project	0	5,000	Q	0	0	0	5,000	5,000	5,000		
51 Gopher Torioise Relocations	0	Q	37,500	0	0	0	37,500	37,500	37,500		
otel of O&M Activities	\$ 2,571,012	\$ 2,015,678	\$ 2,114,878	\$ 2,277,128	\$ 2,335,354	\$ 2,386,317	\$ 13,701,267	\$ 24,922,971	\$ 10,021,465	\$ 1,270,374 \$	13,631
ecoverable Costs Allocated to Energy							\$ 8,134,436				
Recoverable Costs Allocated to CP Demand	3 1 180 422	\$ 667,784	\$ 730,347		\$ 670,789			\$ 10,021,465			
Recoverable Costs Alfocated to GCP Demand				\$ 145,157		\$ 160,157	a /10,842	\$ 1,270,374			
Retail Energy Jurisdictional Factor	56.08126%	88.06128%			98.08128%						
tetail CP Demend Jurisdictional Factor	P8.01395%				88.01395%						
Reteil GCP Demand Jurisdictional Factor	100.00000%					100.00000%					
Juriedictional Energy Recoverable Costs (A)							\$ 7,978,358				
lurisdictional CP Demand Recoverable Costs (B)	\$ 1,156,978	\$ 654,501	\$ 715,841				\$ 4,754,548				
urisdictional GCP Demand Recoverable Costs (C) fatal Jurisdictional Recoverable Costs for O&M	<u> </u>	\$ 85,157			\$ 145,157			\$ 1,270,374 \$ 24,462,387			

Notes: (A) Line 3 x Line 5 (B) Line 4s x Line 6s (C) Line 4b x Line 6b

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Totals may not add due to rounding.

Form 42-5E Page 2 of 2

Florida Power & Light Company Environmental Cost Recovery Clause Calculation of the Actual/Estimated True-Up Amount for the Period January 2012 - December 2012

#### Variance Report of Capital Investment Projects-Recoverable Costs (in Dollars)

	(1) Actual		(2) Original		(3) Varianci	(4)
Line	Estimated		Projection		Amount	Percent
1 Description of Investment Projects						
2 Low NOx Burner Technology	\$ 307,1	30 C	307.169	e	(0)	0.0%
3b Continuous Emission Monitoring Systems	653,3		693,652	φ	(0) (40,331)	-5.8%
4b Clean Closure Equivalency	2.0		2,012		(40,031)	0.0%
5b Maintenance of Stationary Above Ground Fuel Storage Tanks	1,041,4		1,027,134		14,277	1.4%
7 Relocate Turbine Lube Oil Underground Piping to Above Ground	1,5		1,539		0	0.0%
8b Oil Spill Cleanup/Response Equipment	190,3		141,165		49,169	34.8%
10 Relocate Storm Water Runoff	8.2		8,218		(0)	0.0%
NA SO2 Allowances-Negative Return on Investment	(143,9		(144.054)		72	0.0%
12 Scherer Discharge Pipeline	55,4		55,428		(0)	0.0%
20 Wastewater Discharge Elimination & Reuse	122,9	32	122,512		420	0.3%
21 St. Lucie Turtle Net	107,5	94	117,077		(9,483)	-8.1%
22 Pipeline Integrity Management	146,3	24	146,193		132	0,1%
23 SPCC-Spill Prevention, Control & Countermeasures	2,008.6	79	2,032,074		(23,395)	-1.2%
24 Manatee Reburn	3,280,5	24	3,291,987		(11,463)	-0.3%
25 Pt. Everglades ESP Technology	8,055,2	<b>)</b> 4	8,055,204		(0)	0.0%
26 UST Replacement/Removal	11,6		12,154		(474)	-3.9%
31 CAIR Compliance	55,308,5		58,932,516		(3,623,938)	-6.1%
33 MATS Project	12,470,4		12,514,950		(44,519)	-0,4%
35 Martin Plant Drinking Water System Compliance	25,9		25,997		1	0.0%
36 Low-Level Radioactive Waste Storage	723,5		1,305,096		(581,545)	-44.6%
37 DeSoto Next Generation Solar Energy Center	17,408,8		17,511,856		(103,004)	-0,6%
38 Space Coast Next Generation Solar Energy Center	8,246,0		8,246,105		(50)	0.0%
39 Martin Next Generation Solar Energy Center	48,039,9		47,607,281		432,621	0.9%
41 Manatee Temporary Heating System Project	899,3		941,820		(42,470)	-4.5%
42 Turkey Point Cooling Canal Monitoring Plan	398.9		398,925		(12,1,0)	0.0%
44 Martin Plant Barley Barber Swamp Iron Mitigation Project	18,9		16,960		1 974	11.6%
45 800 MW Unit ESP Project	6 171,9		0		6,171,976	NA
2 Total Investment Projects-Recoverable Costs	\$ 165,560,9		163,370,970	\$	2,189,968	1.3%
3 Recoverable Costs Allocated to Energy	\$ 23.476.6	30 S	23.830.888	\$	(354,208)	-1.5%
4 Recoverable Costs Allocated to Demand	\$ 142,084,2		139,540,082		2,544,174	1.8%
	÷ •••2,004,2	Ψ.	130,0-10,00E	*		1.070

Notes:

Column(1) is the 12-Month Totals on Form 42-7E Column(2) is the approved projected amount in accordance with FPSC Order No. PSC-11-0553-FOF-El

Column(3) = Column(1) - Column(2) Column(4) = Column(3) / Column(2)

Form 42-7E Page 1 of 2

Florida Power & Licht Company Environmental Cost Recovery Clause Calculation of the Actual / Estimated Amount for the Period January 2012 - December 2012

1 Description of Investment Projects (A)		ictual JAN		Actual FEB		Actuai		Actual		Actual		Actual	A 14 - 4
	\$	, 				MAR		APR		MAY		JUN	6-Month Sub-Total
	\$												
2 Low NOx Burner Technology	•	26,468	\$	26,310	s	26,151	s	25,993	s	25,835	5	25,677	\$ 156,433
3b Continuous Emission Monitoring Systems		55,084	•	54,890		54,700		54,509		54,318		55,073	328,575
4b Clean Closure Equivalency		171		170		170		169		169		168	1,016
5b Maintenance of Stationary Above Ground Fuel Storage Tanks		85,192		85,004		86,959		88,913		88,720		88,526	523,314
7 Relocate Turbine Lube Oil Underground Piping to Above Ground		131		130		130		129		129		128	778
8b Oil Spill Cleanup/Response Equipment		12,939		12,891		14,600		17,044		16,407		16,343	90,224
10 Relocate Storm Water Runoff		693		691		690		688		687		686	4,135
NA SO2 Allowances-Negative Return on Investment		(14,186)		(13,787)		(13,389)		(12,995)		(12,601)		(12,202)	(79,159)
12 Scherer Discharge Pipeline		4,691		4,678		4,665		4,652		4,639		4,626	27,949
20 Wastewater Discharge Elimination & Reuse		10,351		10,331		10,312		10,293		10,273		10,254	61,815
21 St. Lucie Turtle Net		6,935		8,947		8,959		8,967		8,974		8,979	53,761
22 Pipeline Integrity Management		0		0		0		0		0		11,018	11,018
23 SPCC - Spill Prevention, Control & Countermeasures		172,820		172,504		170,435		168,368		168,059		167,750	1,019,936
24 Manatee Reburn		277,360		276,809		275,634		274,464		273,924		273,383	1,651,574
25 Pt. Everglades ESP Technology		677,948		676,734		675,519		674,304		673,089		671,874	4,049,469
26 UST Removal / Replacement		1,017		1,014		1,012		1,011		995		964	6,013
31 CAIR Compliance		4,223,136		4,220,903		4,219,930		4,225,424		4,243,665		4,424,207	25,557,265
33 MATS Project		1,048,623		1,046,772		1,044,974		1,043,268		1,041,583		1,039,926	6,265,146
35 Martin Plant Drinking Water System Compliance		2,185		2,181		2,178		2,175		2,171		2,168	13,058
36 Low-Level Redioactive Waste Storage		60,700		60,633		60,557		60,479		60,402		60,335	363,107
37 DeSoto Next Generation Solar Energy Center		1,475,800		1,471,460		1,467,240		1,463,953		1,456,920		1,449,912	8,785,284
38 Space Coast Next Generation Solar Energy Center		696,934		694,693		693,012		691,331		689,648		687,966	4,153,585
39 Martin Next Generation Solar Energy Center	3	3,999,460		3,997,500		3,999,704		4,003,340		4,003,549		3,999,460	24,003,013
41 Manatee Temporary Heating System Project		73,821		73,748		73,671		73,642		73,627		73,563	442,072
42 Turkey Point Cooling Canal Monitoring Plan		33,480		33,437		33,394		33,351		33,308		33,265	200,236
44 Martin Plant Barley Barber Swamp Iron Mitigation Project		1,590		1,588		1,586		1,584		1,581		1,579	9,508
45 800 MW Unit ESP Project		147,811		335,646		379.356		387.848		409,005		441.823	2,101,408
-	\$ 13	<u>'</u>	\$		\$		\$		\$	13,329,076	\$	13,537,451	\$ 79,800,612
3 Recoverable Costs Allocated to Energy	s -	1.938.911	5	1,936,163	\$	1,933,431	\$	1,931,444	5	1,930,252	\$	1,943,055	\$ 11,613,255
	\$ 13	1,144,241	\$	11,319,717	\$	11,358,719	\$	11,371,460	\$	11,398,825	\$	11,594,397	\$ 68,187,357
5 Retail Energy Jurisdictional Factor	9	8.08128%		98.08128%		98.08128%		98.08128%		98.08128%		98.08128%	
6 Retail Demand Jurisdictional Factor	9	8.01395%		98.01395%		98.01395%		98.01395%		98.01395%		98.01395%	
7 Jurisdictional Energy Recoverable Costs (B)	<b>\$</b> 1	1,901,709	\$	1,899,013	\$	1,896,333	\$	1,894,385	\$	1,893,215	\$	1,905,773	\$ 11,390,428
						11,133,129							
						13,029,463							78,223,550
Investment Projects (Lines 7 + 8)													

Notes:

(A) Each project's Total System Recoverable Expenses on Form 42-8E, Line 9 (B) Line 3 x Line 5 (C) Line 4 x Line 6

Totals may not add due to rounding.

## Elorida Power & Lloht Company Environmental Cost Recovery Clause Calculation of the Actual / Estimated Amount for the Period January 2012 - December 2012

		Capital Invest	ment Projects-Rei (in Dollars)	coverable Costs						s.
Line # Project #	Estimated JUL	Estimated AUG	Estimated SEP	Estimated OCT	Estimated NOV	Estimated DEC	6-Month Sub-Totai	12-Month Total	<u>Method of C</u> Demand	Energy
1 Description of Investment Projects (A)										
2 Low NOx Burner Technology	\$ 25,51	3 \$ 25,360	\$ 25,202	\$ 25 044	\$ 24,885	\$ 24,727	\$ 150,736	\$ 307,169		\$ 307,169
3b Continuous Emission Monitoring Systems	55,96	55,908	55,709	56,680	52,024	48,460	324,745	653,321		653.321
4b Clean Closure Equivalency	16	167	166	166	165	165	996	2,012	1,857	155
5b Maintenance of Stationary Above Ground Fuel Storage Tanks	88,33	88,137	87,941	87,746	84,140	81,800	518,097	1,041,411	961,302	
7 Relocate Turbine Lube Oil Underground Piping to Above Ground	120	3 127	127	126	126	125	760	1,539	1,421	118
8b Oll Spill Cleanup/Response Equipment	16,041	16,444	17,067	16,999	16,849	16,699	100,108	190,333	175,692	14,641
10 Relocate Storm Water Runoff	68-	683	681	680	679	677	4,084	8,218	7,586	632
NA SO2 Allowances-Negative Return on Investment	(11,80:	2) (11,403)	(11,004)	) (10,604)	) (10,205)	(9,806)	(64,824)	(143,983)	•	(143,983)
12 Scherer Discharge Pipeline	4,61		4,586			4,547	27,479	55,428	51,164	4,264
20 Wastewater Discharge Elimination & Reuse	10,23		10,196			10,138	61,117	122,932	113,476	9,456
21 St, Lucie Turtle Net	8,98:	•	8,974			8,962	53,834	107,594	99,317	8,277
22 Pipeline Integrity Management	22,019		21,956			25,526	135,306	146,324	135,069	11,255
23 SPCC - Spill Prevention, Control & Countermeasures	167,503		167,119			158,201	988,743	2,008,679	1,854,165	154,514
24 Manates Reburn	272,843		271,762		270,681	270,141	1,628,950	3,280,524		3,280,524
25 Pt. Evergiades ESP Technology	670,660		668,230			664,586	4,005,736	8,055,204		8,055,204
26 UST Removal / Replacement	949		945		· ·=	940	5,667	11,680	10,782	898
31 CAIR Compliance	4,589,619		5,064,415	• •		5,105,799	29,751,313	55,308,578	51,054,072	4,254,506
33 MATS Project	1,038,256	• •	1,034,975	• •	1,031,753	1,030,354	6,205,285	12,470,431	11,511,167	959,264
35 Martin Plant Drinking Water System Compliance	2,165		2,158			2,148	12,939	25,998	23,998	2,000
36 Low-Level Radioactive Waste Storage	60,268		60,113		59,958	59,680	360,444	723,551	667,894	55,657
37 DeSoto Next Generation Solar Energy Center	1,446,316	• •	1,439,087	1,435,551	1,431,847	1,428,065	8,623,567	17,408,852	16,069,710	1,339,142
38 Space Coast Next Generation Solar Energy Center	686,284	•	682,920	,	679,555	677,872	4,092,470	8,246,055	7,611,743	634,312
39 Martin Next Generation Solar Energy Center	4,005,206	• •	4,007,628		4,003,071	4,003,919	24,036,889	48,039,902	44,344,525	3,695,376
41 Manatee Temporary Heating System Project	73,499	•	73,370			90,420	457,277	899,349	830,169	69,180
42 Turkey Point Cooling Canal Monitoring Plan	33,222	•	33,136	,	33,050	33,007	198,688	398,925	368,239	30,686
44 Martin Plant Barley Barber Swamp Iron Mitigation Project	1,577	•	1,572		1,568	1,565	9,426	18,934	18,934	
45 800 MW Unit ESP Project	518,894		648,509	730,912	775,943	810,147	4,070,488	6,171,976	6,171,976	
2 Total Investment Projects - Recoverable Costs	\$ 13,788,149	\$ 14,094,813	\$ 14,377,542	\$ 14,461,075	\$ 14,489,670	\$ 14,549,074	85,760,324	\$ 165,560,936	\$ 142,084,256	\$23,476,680
3 Recoverable Costs Allocated to Energy	\$ 1,955,836	\$ 1,972,608			• • • • • • • • • •			\$ 23,476,680		
4 Recoverable Costs Allocated to Demand	\$ 11,832,313	\$ 12,122,005	\$ 12,389,368	\$ 12,473,317	\$ 12,508,871	\$ 12,571,024	\$ 73,896,899	\$ 142,084,266		
5 Retail Energy Jurisdictional Factor	98.081289		98.08126%			98.08128%				
6 Retail Demand Jurisdictional Factor	98.013959	6 98.01395%	98.01395%	98.01395%	98.01395%	98.01395%				
7 Jurisdictional Energy Recoverable Costs (B)	\$ 1,918,309	\$ 1,934,955	\$ 1,950,026	\$ 1,949,619	\$ 1,942,793	\$ 1,940,097	11.635.799	\$ 23,028,229		
8 Jurisdictional Demand Recoverable Costs (C)		\$ 11,881,256			\$ 12,260,439			\$ 139,262,391		
									•	
<ul> <li>9 Total Jurisdictional Recoverable Costs for</li> </ul>	<u>\$ 13,515,627</u>	\$ 13,816,212	<u>\$ 14,093,335</u>	<u>\$_14,175,210</u>	<u>\$ 14,203,232</u>	\$ 14,261,454	\$ 84,065,068	<u>\$ 162,288,620</u>		
Investment Projects (Lines 7 + 8)										

Notes: (A) Each project's Total System Recoverable Expenses on Form 42-8E, Line 9 (B) Line 3 x Line 5 (C) Line 4 x Line 6

Totals may not add due to rounding.

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Form 42-7E Page 2 of 2

#### Form 42-8E Page 1 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Low NOx Burner Technology (Project No. 2) (in Dollars)

Lin	8	Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1.	invesiments	• • • • • • • • • • • • • • • • • • • •							•
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<li>b. Clearings to Plant</li>		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements		\$0	\$0	\$0	<b>\$</b> 0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$9,896,803	9,896,803	9,896,803	9,896,803	9,896,803	9,896,803	9,896,803	n/a
3.	Less: Accumulated Depreciation	\$9,050,547	9,070,322	9,090,098	9,109,873	9,129,648	9,149,423	9,169,199	n/a
4.	CWIP - Non Interest Bearing	\$0	0	Q	0	0	0	<u>0</u>	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$846,256	\$826,481	\$806,705	\$786,930	\$767,155	\$747,380	\$727.604	n/a
6.	Average Net Investment		836,368	816,593	796,818	777,042	757,267	737,492	n/a
7.									
	<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		5,335	5,209	5,083	4,957	4,831	4,704	\$30,119
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		1,357	1,325	1,293	. 1,261	1,229	1,197	\$7,662
8.	Investment Expenses								
	a. Depreciation (E)		19,775	19,775	19,775	19,775	19,775	19,775	\$118,652
	<li>b. Amortization (F)</li>								
	c. Dismantlement (G)								
	<ol> <li>Property Expenses</li> </ol>								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$26,468	\$26.310	\$26,151	\$25,993	\$25,835	\$25,677	\$156.433

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equilty Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable emortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

#### Form 42-8E Page 2 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Low NOx Burner Technology (Project No. 2) (in Dollars)

Lin	<u>e</u>	Beginning of Period Amount	July Eştim <u>ate</u>	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0
2. 3. 4.	Plant-In-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non Interest Bearing	\$9,896,803 \$9,169,199 \$0	9,896,803 9,188,974 0	9,896,803 9,208,749 0	9,896,803 9,228,525 0	9,896,803 9,248,300 0	9,896,803 9,268,075 0	9,896,803 9,287,850 0	n/a n/a n/a
5.	Net investment (Lines 2 - 3 + 4)	\$727,604	\$707.829	\$688,054	\$668,278	\$648,503	\$628,728	\$608,952	n/a
6.	Average Net Investment		717,717	697,941	678, 166	658,391	638,615	618,840	n/a
7.	Return on Average Net Investment a. Equity Component grossed up for taxes (B) b. Debt Component (Line 6 x debt rate x 1/12) (C)		4,578 1,165	4, <b>452</b> 1,133	4,326 1,101	4,200 1,068	4,074 1,036	3,948 1,004	55,697 14,169
8.	Investment Expenses a. Depreciation (E) b. Amortization (F) c. Dismantement (G) d. Property Expenses e. Other		19,775	19,775	19,775	19,775	19,775	19,775	237,303
9,	Total System Recoverable Expenses (Lines 7 & 8)		\$25,518	\$25,360	\$25,202	\$25,044	\$24,885	\$24,727	\$307,169

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equily Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes <u>For Project: Continuous Emissions Monitorina (Project No. 3b)</u> (In Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1.	Investments a. Expenditures/Additions		\$0	\$0	\$0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$0
	a. Expenditures/Additions b. Clearings to Plant		\$0 \$0	30 \$0	\$0 \$0	\$0 \$0	\$875	\$115,536	\$116.411
	c. Retirements		\$0	\$0 \$0	\$0	\$0	\$0	(\$70,124)	(\$70, 124)
	d. Other		\$0	(\$319)	(\$959)	\$0	(\$0)	(\$3)	(\$1,280)
2.	Plant-In-Service/Depreciation Base (A)	\$10,232,475	10,232,475	10,232,475	10,232,475	10,232,475	10,233,350	10,348,886	n/a
3.	Less: Accumulated Depreciation	\$6,385,777	6,410,179	6,434,262	6,457,705	6,482,107	6,506,509	6,460,989	n/a
4.	CWIP - Non Interest Bearing	\$0	Q	0	0	0	O	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$3,846,698	\$3,822,296	\$3,798,213	\$3,774,770	\$3,750,369	\$3,726,841	\$3,887,897	n/a
6.	Average Net Investment		3,834,497	3,810,255	3,786,492	3,762,569	3,738,605	3,807,369	n/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		24,460	24,306	24,154	24,001	23,849	24,287	\$145,057
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		6,223	6,183	6,145	6,106	6,067	6,179	\$36,902
8.	Investment Expenses								
	a. Depreciation (E)		24,402	24,402	24,402	24,402	24,403	24,607	\$146,616
	<li>b. Amortization (F)</li>								
	c. Dismantlement (G)								
	d. Property Expenses								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)	=	\$55,084	\$54,890	\$54,700	\$54,509	\$54,318	\$55,073	\$328,575

Notes:

(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSolo (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Elorida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes <u>For Project: Continuous Emissions Monitoring (Project No. 3b)</u> (In Dollars)

Lin	<u>.</u>	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Tweive Month Amount
1.	Investments								
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		\$28,077	<b>\$</b> 0	<b>\$</b> 0	\$203,561	(\$1,212,116)	\$0	(\$864,067)
	c. Retirements		\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0	(\$70,124)
	d. Other		\$0	\$0	\$0	\$0	(\$367,869)	<b>\$</b> 0	(\$369,149)
2.	Plant-In-Service/Depreciation Base (A)	\$10,348,886	10,376,963	10,376,963	10,376,963	10,580,524	9,368,408	9,368,408	n/a
3.	Less: Accumulated Depreciation	\$6,460,989	6,485,830	6,510,702	6,535,574	6,560,802	6,216,263	6,239,593	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0	0	0	<u>`</u> Q	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$3,887,897	\$3,891,133	\$3,866,261	\$3,841,389	\$4,019,722	\$3,152,145	\$3,128,815	n/a
6.	Average Net Investment		3,889,515	3,878,697	3,853,825	3,930,556	3,585,934	3,140,480	n/a
7,	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		24,811	24,742	24,584	25,073	22,875	20,033	287,175
	<ul> <li>Debt Component (Line 6 x debt rate x 1/12) (C)</li> </ul>		6,312	6,294	6,254	6,379	5,819	5,096	73,056
8.	Investment Expenses								
	a. Depreciation (E)		24,841	24,872	24,872	25,228	23,330	23,330	293,089
	<li>b. Amortization (F)</li>								
	c. Dismantlement (G)								
	<ol> <li>Property Expenses</li> </ol>								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)	_	\$55,964	\$55,908	\$55,709	\$56,680	\$52,024	\$48,460	\$653,321

Notes:

(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EL

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

#### Form 42-8E Page 5 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Clean Closure Equivalency (Project No. 4b) (in Dollars)

Line		Beginning of Period Amount	January Actual	February <u>Ac</u> tuat	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1.	Investments								
	<ul> <li>Expenditures/Additions</li> </ul>		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<ul> <li>Clearings to Plant</li> </ul>		\$0	<b>\$</b> 0	\$0	\$0	\$0	\$0	\$0
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	<b>\$</b> 0
	d. Other		\$0	<b>\$</b> 0	\$0	\$0	<b>\$</b> 0	<b>\$</b> 0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$41,612	41,612	41,612	41,612	41,612	41,612	41,612	n/a
З.	Less: Accumulated Depreciation	\$28,925	28,995	29,064	29,134	29,203	29,273	29,342	n/a
4.	CWIP - Non Interest Bearing	\$0	O	ρρ	0	0	.0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$12,686	\$12,617	\$12,547	\$12,478	\$12,408	\$12,339	\$12,269	n/a
6.	Average Net investment		12,652	12,582	12,513	12,443	12,374	12,304	n/a
7.	Return on Average Net Investment								
	<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		81	80	80	79	79	78	\$478
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		21	20	20	20	20	20	\$121
8.	Investment Expenses								
	a. Depreciation (E)		70	70	70	70	70	70	\$417
	b. Amortization (F)								
	c. Dismantlement (G)								
	<li>d. Property Expenses</li>								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$171	\$170	\$170	\$169	\$169	\$168	\$1,016

Notes:

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Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(A) (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equily per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

#### Form 42-8E Page 6 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Clean Closure Equivalency (Project No. 4b) (in Dollars)

Lin	e	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month
	investments			<b>A</b> 0		\$0	\$0	\$0	\$0
	a. Expenditures/Additions		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0	\$0
	b. Clearings to Plant		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements d. Other		\$0	\$0 \$0	<b>\$</b> 0	\$0	\$0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$41,612	41,612	41,612	41,612	41,612	41,612	41,612	n/a
3.	Less: Accumulated Depreciation	\$29,342	29,412	29,481	29,551	29,620	29,690	29,759	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0	0	. 0	0	0	n/a
5.	Net investment (Lines 2 - 3 + 4)	\$12,269	\$12,200	\$12,130	\$12,061	\$11,991	\$11,922	\$11,852	n/a
6.	Average Net Investment	÷	12,235	12,165	12,095	12,026	11,956	11,887	n/a
· 7,							70	70	939
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		78	78	77	77	76 19	76 19	239
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		20	20	20	20	19	13	235
8.	Investment Expenses a. Depreciation (E)		70	70	70	70	70	70	834
	b. Amortization (F)		÷						
	c. Dismantlement (G)								
	d. Property Expenses								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)	-	\$167	\$167	\$166	\$166	\$165	\$165	\$2,012

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

Form 42-8E Page 7 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes <u>For Protect: Maintenance of Above Ground Storage Tanks (Project No. 5b)</u> (in Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
<ol> <li>Investments         <ul> <li>Expenditur</li> <li>Clearings</li> <li>C. Retirement</li> <li>Other</li> </ul> </li> </ol>			\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$421,985 \$0 \$0	\$0 \$329 \$0 \$0	\$0 \$41 \$0 \$0	\$0 \$185 \$0 \$0	\$0 \$422,540 \$0 \$0
	/Depreciation Base (A) ted Depreciation rest Bearing	\$11,726,140 \$4,001,436 \$0	11,726,140 4,024,910 0	11,726,140 4,048,384 D	12, 148, 126 4,072, 315 0	12, 148, 455 4,096, 703 D	12,148,496 4,121,092 0	12,148,681 4,145,481 0	n/a n/a n/a
5. Net Investment	(Lines 2 - 3 + 4)	\$7,724,705	\$7,701,231	\$7,677,757	\$8.075.811	\$8,051,751	\$8,027,404	\$8,003,199	n/a
6. Average Net inv	estment		7,712,968	7,689,494	7,876,784	8,063,781	8,039,577	8,015,301	n/a
a. Equity Cor	ge Net Investment nponent grossed up for taxes (B) ponent (Line 6 x debt rate x 1/12) (C)		49,201 12,517	49,051 12,479	50,246 12,782	51,439 13,086	51,284 13,047	51,130 13,007	\$302,351 \$76,917
<ol> <li>Investment Expr a. Depreciating</li> <li>Amortization</li> <li>C. Dismantier</li> <li>d. Property E</li> <li>e. Other</li> </ol>	n (E) n (F) nent (G)		23,474	23,474	23,931	_ 24,389	24,389	24,389	\$144,046
9. Total System Re	coverable Expenses (Lines 7 & 8)		\$85.192	\$85,004	\$86.959	\$88,913	\$88,720	\$88,526	\$523,314

Notes:

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(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-Ei.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EL.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

#### Form 42-8E Page 8 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Maintenance of Above Ground Storage Tanks (Project No. 5b) (in Dollars)

Line	-	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month
1.	Investments a. Expenditures/Additions		\$0	\$0	<b>\$</b> 0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		\$0	\$0	\$0	\$0	(\$796,754)	\$0	(\$374,214)
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	(\$258,212)	\$0	(\$258,212)
2.	Plant-In-Service/Depreciation Base (A)	\$12,148,681	12,148,681	12, 148,681	12,148,681	12,148,681	11,351,926	11,351,926	n/a
3.	Less: Accumulated Depreciation	\$4,145,481	4,169,871	4,194,260	4,218,650	4,243,039	4,007,955	4,031,083	n/a
4,	CWIP - Non Interest Bearing	\$0	Q	Ø	0	0	0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$8,003,199	\$7.978.810	\$7,954,420	\$7,930,031	\$7,905,642	\$7,343,971	\$7,320,843	n/a
6.	Average Net Investment		7,991,005	7,966,615	7,942,226	7,917,836	7,624,806	7,332,407	n/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		50,975	50,819	50,663	50,508	48,639	46,773	600,728
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		12,968	12,928	12,889	12,849	12,374	11,899	152,824
8.	Investment Expenses								
	a. Depreciation (E)		24,389	24,389	24,389	24,389	23,128	23,128	287,859
	b. Amortization (F)								
	c. Dismantiement (G)								
	d. Property Expenses								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)	_	\$88,332	\$88,137	\$87,941	\$87,746	\$84,140	\$81,800	\$1,041,411

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equily Component of 4.7019% reflects a 10% return on equily per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSolo (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

#### Form 42-8E Page 9 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Relocate Turbine Oll Underground Ploing (Project No. 7) (in Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month
1.	Investments a. Expenditures/Additions		\$0	\$0	<b>\$</b> 0	<b>\$</b> 0	\$0	\$0	<b>\$</b> 0
	b. Cleadings to Plant		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$31,030	31,030	31,030	31,030	31,030	31,030	31,030	n/a
3.	Less: Accumulated Depreciation	\$22,388	22,450	22,512	22,574	22,635	22,698	22,761	n/a
4.	CWIP - Non Interest Bearing	\$0		0	0	0	0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$8,642	\$8,580	\$8,518	\$8.456	\$8,394	\$8,332	\$8,269	n/a
6.	Average Net Investment		8,611	8,549	8,487	8,425	8,363	8,301	n/a
7.	Return on Average Net Investment								
	<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		55	55	54	54	53	53	\$324
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		14	14	14	14	14	13	\$82
8.	Investment Expenses								
	a. Depreciation (E)		62	62	62	62	62	62	\$372
	<li>b. AmortIzation (F)</li>								
	c. Dismantlement (G)								
	<ul> <li>Property Expenses</li> </ul>								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$131	\$130	\$130	\$129	\$129	\$128	\$778

Notes:

(A) Applicable beginning of period and and of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equily per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

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(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.
 (G) Dismantiement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Protect: Relocate Turbine Oil Underground Piping (Project No. 7) (in Dollars)

Line	L .	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1.	Investments a. Expenditures/Additions		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
	<ul> <li>b. Clearings to Plant</li> <li>c. Retirements</li> <li>d. Other</li> </ul>		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$D
2.	Plant-in-Service/Depreciation Base (A)	\$31,030 \$22,761	31,030 22,823	31,030 22,885	31,030 22,947	31,030 23,009	31,030 23,071	31,030 23,133	n/a n/a
3. 4.	Less: Accumulated Depreciation CWIP - Non Interest Bearing	\$22,761 \$0	Q	22,665	0	0	0	0_	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$8,269	\$8.207	\$8,145	\$8,083	\$8,021	\$7,959	\$7,897	n/a
6.	Average Net Investment		8,238	8,176	8,114	8,052	7,990	7,928	n/a
7.	Return on Average Net Investment		53	52	52	51	51	51	633
	<ul> <li>a. Equity Component grossed up for taxes (B)</li> <li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li> </ul>		13	13	13	13	13	13	161
8.	a. Depreciation (E) b. Amortization (F) c. Dismontlement (G)		62	62	62	62	62	62	745
	d. Property Expenses e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$128	\$127	\$127	\$126	\$126	\$125	\$1,539

Notes:

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 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EL

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period Jenuary through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Oll Spill Cleanup/Response Equipment (Project No. 8b) (in Dollars)

Line	Beginning of Period <u>Amount</u>	January Actual	February Actual	March Actual	April Actual	May .	June Actual	Six Month Amount
1. Investments		**	•0	*0	*0	•••	**	•0
<ul> <li>a. Expenditures/Additions</li> <li>b. Clearings to Plant</li> </ul>		\$0	\$0 \$449	\$0 \$366.140	\$0	\$0 \$1	\$0	\$0 \$318,225
Clearings to Plent     c. Retirements		(\$57,638) (\$58,779)		\$366,140 \$0	\$9,273 \$0	\$0 \$0	\$0 \$0	\$318,225 (\$60,400)
d. Other		(\$285)	(\$1,621) (\$567)	\$0 \$0	\$0	(\$0)	\$0	(\$853)
2. Plant-In-Service/Depreciation Base (A)	\$964,442	906,804	907,253	1,273,393	1,282,666	1,282,566	1,282,666	n/a
3. Less: Accumulated Depreciation	\$263,094	211,380	216,538	224,176	232,822	240,861	248,900	n/a
4. CWIP - Non Interest Bearing	\$0	\$0	\$0	\$0	\$0	\$0	<u>\$0</u>	n/a
5. Net Investment (Lines 2 - 3 + 4)	\$701.348	\$695.424	\$690,715	\$1,049,217	\$1.049.844	\$1,041,805	\$1,033,767	n/a
6. Average Net Investment		698,386	693,070	869,966	1,049,530	1,045,825	1,037,786	n/a
7. Return on Average Net Investment								
<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		4,455	4,421	5,550	6,695	6,671	6,620	\$34,412
<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		1,133	1,125	1,412	1,703	1,697	1,684	\$8,754
8. Investment Expenses								
a. Depreciation (E)		7,350	7,346	7,639	8,646	8,039	8,039	\$47,058
b. Amartization (F)								
c. Dismantlement (G)								
d. Property Expenses e. Other								
9. Total System Recoverable Expenses (Lines 7 & 8)	-	\$12,939	\$12,891	\$14,600	\$17,044	\$16,407	\$15,343	\$90,224

Notes:

(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-Ef.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amonization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

#### Form 42-8E Page 12 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Oil Spill Cleanuo/Response Equipment (Project No. 8b) (In Dollars)

Line	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1. Investments							\$0	\$0
<ul> <li>Expenditures/Additions</li> </ul>		\$0	<b>\$</b> 0	\$0	\$0	\$0 \$0	\$0 (\$13,891)	\$320,117
<li>b. Clearings to Plant</li>		\$0	\$18,383	(\$2,600)	\$0 \$0	\$0 \$0	(\$13,891)	(\$115,664)
c. Retirements		\$0	(\$38,773)	(\$2,600)	\$0 \$0	\$0 \$0	(#13,891) \$0	(\$853)
d. Other		\$0	<b>\$</b> 0	<b>\$</b> 0	20	30	<b>4</b> 0	(3003)
2. Plant-In-Service/Depreciation Base (A)	\$1,282,666	1,282,666	1,301,049	1,298,449	1,298,449	1,298,449	1,284,558	n/a
3. Less: Accumulated Depreciation	\$248,900	256,708	225,973	231,872	240,371	248,787	243,229	n/a
4. CWIP - Non Interest Bearing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	n/a
5. Net Investment (Lines 2 - 3 + 4)	\$1,033,767	\$1,025,958	\$1,075,076	\$1,066,577	\$1,058,079	\$1,049,662	\$1,041,329	n/a
6. Average Net investment		1,029,863	1,050,517	1,070,827	1,062,328	1,053,870	1,045,495	n/a
7. Return on Average Net Investment								
a. Equity Component grossed up for taxes (B)		6,569	6,701	6,831	6,777	6,723	6,669	74,682
b. Debt Component (Line 6 x debt rate x 1/12) (C)		1, <del>6</del> 71	1,705	1,738	1,724	1,710	1,697	18,999
8. Investment Expenses								
a. Depreciation (E)		7,808	8,038	8,499	8,499	8,416	8,334	96,652
b. Amortization (F)								
c. Dismantlement (G)								
d. Property Expenses								
e. Other								
	_			\$47.04-	B40.000	£10.040	\$16,699	\$190,333
<ol><li>Total System Recoverable Expenses (Lines 7 &amp; 8)</li></ol>	_	\$16,049	\$16,444	\$17,067	\$16,999	\$16,849	3 10,099	\$190,000

Notes:

 (A) Applicable beginning of period and and of period depreciable base by production plant name(s), unlt(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

#### Form 42-8E Page 13 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Relocate Storm Water Runoff (Project No. 10) (in Dollars)

		Beginning of Period Amount	January Actual	February Actuai	March Actual	April Actual	May Actual	June Actual	Six Month
1.	Investments a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$117,794	117,794	117,794	117,794	117,794	117,794	117,794	n/a
3.	Less: Accumulated Depreciation	\$53,226	53,403	53,579	53,756	53,933	54,109	54,286	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0		0	0	<u> </u>	n/a
5.	Net Investment (Lines 2 - 3.+ 4)	\$64.568	\$64,391	\$64.215	\$64,038	\$63.861	\$63.684	\$63,508	n/a
6.	Average Net Investment		64,480	64,303	64,126	63,950	63,773	63,596	n/a
7.	Return on Average Net Investment								
	<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		411	410	409	408	407	406	\$2,451
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		105	104	104	104	103	103	\$624
8.	Investment Expenses								
	a. Depreciation (E)		177	177	177	177	177	177	\$1,060
	b. Amortization (F)								
	c. Dismantlement (G)								
	d. Property Expenses								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$693	\$691	\$690	\$688	\$687	\$686	\$4,135

Notes:

 Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Relocate Storm Water Runoff (Project No. 10) (in Dollars)

_Line_		Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1. Investments					*0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$0
	ditures/Additions		\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0	ŝõ	\$0
	ngs to Plant		\$0 \$0	\$0	\$0 \$0	\$0	\$0	\$0	\$0
c. Retirer d. Other	hents		\$0	\$0	\$0	\$0	\$0	\$0	\$0
2. Plant-In-Ser	vice/Depreciation Base (A)	\$117,794	117,794	117,794	117,794	117,794	117,794	117,794	n/a
	nulated Depreciation	\$54,286	54,463	54,639	54,816	54,993	55,169	55,346	n/a
4. CWIP - Non	Interest Bearing	\$0	0	0	0	0	0	0	n/a
5. Net Investm	ent (Lines 2 - 3 + 4)	\$63,508	\$63,331	\$63,154	<b>\$</b> 62,978	\$62,801	\$62,624	\$62,448	n/a
6. Average Ne	et Investment		63,419	63,243	63,066	62,889	62,713	62,536	n/a
7. Return on A	verage Net Investment						(00		4,861
a. Equity	Component grossed up for taxes (B)		405	403	402	401	400 102	399 101	4,801
b. Debt C	Component (Line 6 x debt rate x 1/12) (C)		103	103	102	102	102	101	1,237
8. Investment	Expenses						477	177	2,120
	ciation (E)		177	177	177	177	177	177	2,120
	ization (F)								
	ntlement (G)								
d. Proper e. Other	rty Expenses								
					_				
9. Total System	m Recoverable Expenses (Lines 7 & 8)	_	\$684	\$683	\$681	\$680	\$679	\$677	\$8,218

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.
 (G) Dismantlement anly applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

## Form 42-8E Page 15 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Scherer Discharge Pipeline (Project No. 12) (In Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1.	Investments		<b>t</b> 0	ên.	<b>e</b> n	<b>e</b> 0	<b>\$</b> 0	\$0	\$0
•	a. Expenditures/Additions b. Clearings to Plant		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
	<ul> <li>b. Clearings to Plant</li> <li>c. Retirements</li> </ul>		\$0 \$0	\$0	\$0	\$0	\$0 \$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$854,324	854,324	854,324	854,324	854,324	854,324	854,324	n/a
3.	Less: Accumulated Depreciation	\$471,276	472,908	474,541	476,173	477,805	479,437	481,070	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0	0	Q	0	0	n/a
5.	Net investment (Lines 2 - 3 + 4)	\$383,048	\$381,416	\$379,783	\$378,151	\$376,519	\$374,886	\$373,254	n/a
6.	Average Net Investment		382,232	380,599	378,967	377,335	375,702	374,070	n/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		2,438	2,428	2,417	2,407	2,397	2,386	\$14,473
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		620	618	615	612	610	607	\$3,682
8.	Investment Expenses								
	a. Depreciation (E)		1,632	1,632	1,632	1,632	1,632	1,632	\$9,794
	b. Amortization (F)								
	c. Dismantlement (G)								
	<li>d. Property Expenses</li>								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)	_	\$4,691	\$4,678	\$4,665	\$4,652	\$4,639	\$4,626	\$27,949

Notes:

Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(A) (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equily Component of 4.7019% reflects a 10% return on equilty per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

## Form 42-8E Page 16 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Scherer Discharge Pipeline (Project No. 12) (in Dollars)

Lin		Beginning of Period <u>Amount</u>	Juty Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month
1,	Investments a. Expenditures/Additions		<b>\$</b> 0	\$0	\$0	\$0	\$0	\$0	<b>\$</b> 0
	b. Clearings to Plant		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0
2.	Plant-in-Service/Depreciation Base (A)	\$854,324	854,324	854,324	854,324	854,324	854,324	854,324	n/a
3.	Less: Accumulated Depreciation	\$481,070	482,702	484,334	485,967	487,599	489,231	490,864	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0	Q	0	0	<u> </u>	n/a
5.	Net Investment (Lines 2 ~ 3 + 4)	\$373,254	\$371.622	\$369,989	\$368,357	\$366,725	\$365,092	\$363,460	n/a
6.	Average Net Investment		372;438	370,805	369,173	367,541	365,908	364,276	n/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		2,376	2,365	2,355	2,345	. 2,334	2,324	28,572
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		604	602	599	596	594	591	7,269
8.	Investment Expenses								
	a. Depreciation (E)		1,632	1,832	1,632	1,632	1,632	1,632	19,588
	<li>b. Amortization (F)</li>								
	c. Dismantement (G)								
	d. Property Expenses e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$4,613	\$4,599	\$4,586	\$4,573	\$4,560	\$4,547	\$55,428

Notes:

 Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

## Form 42-8E Page 17 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Wasterwater/Stormwater Reuse (Project No. 20) (in Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1.	Investments							•0	•
	a. Expenditures/Additions		\$0	\$0	\$0	<b>\$</b> 0	\$0	\$0	\$0
	<ul> <li>Clearings to Plant</li> </ul>		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0 \$0
	d. Other		\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0	<b>\$</b> U
2.	Plant-In-Service/Depreciation Base (A)	\$1,235,070	1,235,070	1,235,070	1,235,070	1,235,070	1,235,070	1,235,070	n/a
3.	Less: Accumulated Depreciation	\$242,830	245,251	247,672	250,093	252,513	254,934	257,355	n/a
		\$0	\$0	\$0	\$0	\$0	\$0	<u>\$0</u>	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$992,240	\$989,819	\$987,399	\$984.978	\$982,557	\$980,136	\$977.715	n/a
6.	Average Net Investment		991,030	988,609	986,188	983,767	981,346	978,926	n/a
7.	Return on Average Net Investment								
	<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		6,322	6,306	6,291	6,275	6,260	6,245	\$37,699
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		1,608	1,604	1,600	1,596	1,593	1,589	\$9,591
8.	Investment Expenses								
	a. Depreciation (E)		2,421	2,421	2,421	2,421	2,421	2,421	\$14,525
	<li>b. Amortization (F)</li>								
	c. Dismantiement (G)								
	<li>d. Property Expenses</li>								
	e. Other								
0	Total System Recoverable Expenses (Lines 7 & 8)	-	\$10,351	\$10,331	\$10.312	\$10,293	\$10.273	\$10.254	\$61,815

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EL

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Wasterwater/Stormwater Reuse (Project No. 20) (in Dollars)

<u>Lin</u>		Beginning of Period Arriount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
	a. Expenditures/Additions		<b>\$</b> 0	\$0	\$0	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0
	b. Clearings to Plant		\$0	\$0	\$0 \$0	3-0 \$0	\$0 \$0	\$0 \$0	\$0
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$1,235,070	1,235,070	1,235,070	1,235,070	1,235,070	1,235,070	1,235,070	n/a
3.	Less: Accumulated Depreciation	\$257,355	259,776	262, 197	264,618	267,039	269,459	271,880	n/a
4.	CWIP - Non Interest Bearing	\$0		\$0	\$0	\$0	\$0	\$0	n/a
5.	Net investment (Lines 2 - 3 + 4)	\$977,715	\$975,294	\$972.874	.\$970,453	\$968,032	\$965.611	\$963,190	n/a
6.	Average Net Investment		976,505	974,084	971,663	969,242	966,821	<b>964,</b> 401	n/a
7.	Return on Average Net Investment								
	<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		6,229	6,214	6,198	6,183	6,167	6,152	74,842
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		1,585	1,581	1,577	1,573	1,569	1,565	19,040
8.	Investment Expenses								
	a. Depreciation (E)		2,421	2,421	2,421	2,421	2,421	2,421	29,050
	<li>b. Amortization (F)</li>								
	c. Dismantlement (G)								
	<ul> <li>Property Expenses</li> </ul>				•				
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)	_	\$10,235	\$10.215	\$10,196	\$10,177	\$10,157	\$10,138	<u>\$122,932</u>

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.51425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EL

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

## Form 42-8E Page 19 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Turtle Nets (Project No. 21) (In Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
<ol> <li>investments         <ol> <li>Expenditures/Add b. Clearings to Plan c. Retirements</li> <li>Other</li> </ol> </li> </ol>			\$0 \$0 \$50 (\$650)	\$0 \$0 \$0 (\$3,483)	\$0 \$0 \$0 (\$641)	\$0 \$0 \$0 (\$2,289)	\$0 \$0 \$0 (\$569)	\$0 \$0 \$0 (\$1,906)	\$0 \$0 \$0 (\$9,538)
2. Plant-In-Service/Depre		\$352,942	352,942	352,942 (700,481)	352,942 (700,593)	352,942 (702,352)	352,942 (702,392)	352,942 (703,769)	n/a n/a
<ol><li>Less: Accumulated De</li></ol>		(\$697,407)	(697,528)	(700,461)	(100,383)	(102,002)	0	0	n/a
<ol><li>CWIP - Non Interest B</li></ol>	earing _	\$0	V	¥					
5. Net investment (Lines	2 - 3 + 4}	\$1,050,349	\$1.050,470	\$1,053,423	\$1,053,535	\$1,055,295	\$1,055,334	\$1,056,711	n/a
6. Average Net Investme	nt		1,050,409	1,051,947	1,053,479	1,054,415	1,055,314	1,056,023	n/a
7. Return on Average Ne			6,701	6,710	6,720	6.726	6,732	6,736	\$40,325
	nt grossed up for taxes (B) (Line 5 x debt rate x 1/12) (C)		1,705	1,707	1,710	1,711	1,713	1,714	\$10,259
<ol> <li>Investment Expenses         <ul> <li>Depreciation (E)</li> <li>Amortization (F)</li> <li>Dismantlement (f)</li> </ul> </li> </ol>	3).		529	529	529	529	529	529	\$3,176
d. Property Expense e. Other									
9. Total System Recover	able Expenses (Lines 7 & 8)		\$8,935	\$8,947	\$8,959	\$8,967	\$8,974	\$8,979	\$53,761

Notes:

FOF-EL

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.
 (G) Dismantiement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Turtle Nets (Project No. 21) (in Dollars)

Line	Investments	of Period Amount	July Estimate	August Estimate	September Eşti <u>mate</u>	October Estimate	November Estimate	December Estimate	Twelve Month
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0
	b. Clearings to Plant		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements		\$0	\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0
•	d. Other		\$0	<b>\$</b> 0	<b>\$</b> 0	\$0	\$0	<b>\$</b> 0	(\$9,538)
2.	Plant-In-Service/Depreclation Base (A)	\$352,942	352,942	352,942	352,942	352,942	352,942	352,942	n/a
3.	Less: Accumulated Depreciation	(\$703,769)	(703,239)	(702,710)	(702,180)	(701,651)	(701,122)	(700,592)	n/e
4.	CWIP - Non Interest Bearing	\$0		0	Q	0	0	0_	r/a
5.	Net Investment (Lines 2 - 3 + 4)	\$1,056,711	\$1,056,181	\$1,055,652	\$1,055,123	\$1,054,593	\$1,054,064	\$1,053,534	n/a
6.	Average Net Investment		1,056,446	1,055,917	1,055,387	1,054,858	1,054,329	1,053,799	n/a
7.	Return on Average Net Investment								
	<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		6,739	6,736	6,732	6,729	6,726	6,722	80,709
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		1,714	1,714	1,713	1,712	1,711	1,710	20,532
8.	Investment Expenses								
	a. Depreciation (E)		529	529	529	529	529	529	6,353
	b. Amortization (F)								
	c. Dismantlement (G)								
	<li>d. Property Expenses</li>								
	e. Other								
	Total System Recoverable Expenses (Lines 7 & 8)		\$8,983	\$8,979	\$8,974	\$8,970	\$8,966	\$8.962	\$107.594

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.70 March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equily per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amorization period(s). See Form 42-8E, pages 55-59.
 (G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

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#### Floride Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Pipeline Integrity Management (Project No. 22) (in Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actuat	May Actual	June Actual	Six Month Amount
1.	Investments		•	\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0
	a. Expenditures/Additions     b. Clearings to Plant		\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$2,261,238	\$2,261,238
	c. Retirements		\$0	\$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	\$0	\$0	\$D
2.	Plant-In-Service/Depreciation Base (A)	\$0	0	0	0	0	0	2,261,238	n/a
З.	Less: Accumulated Depreciation	\$0	. 0	0	0	0	0	1,979	n/a
4.	CWIP - Non Interest Bearing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$0	\$0	\$0	\$0		<u>\$0</u>	\$2,259,250	n/a
6.	Average Net Investment		Đ	0	0	0	0	1,129,630	n/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		0	0	0	0	0	7,206	\$7,206
	<ul> <li>Debt Component (Line 6 x debt rate x 1/12) (C)</li> </ul>		0	0	0	0	0	1,833	\$1,833
8.	Investment Expenses								
	a. Depreciation (E)		0	0	0	0	0	1,979	\$1,979
	<li>b. Amortization (F)</li>								
	c. Dismantlement (G)								
	<li>d. Property Expenses</li>								
	e. Other								
	Total System Recoverable Expenses (Lines 7 & 8)	_	\$0	<b>\$</b> 0	<b>\$</b> 0		<u>\$0</u>	\$11,018	\$11.018

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Floride Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Pipeline Integrity Management (Project No. 22) (in Dollars)

Investments         so	Twelve Month Amount	December Estimate	November Estimate	October Estimate	September Estimate	August Estimale	July Estimate	Beginning of Period Amount	Line
a.       Experiative SPlant       \$0       \$	\$0	\$0	<b>\$</b> 0	\$0	ŧŋ	*0	**		
D. Clearings of refix       50 <t< th=""><th>\$3,013,308</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>•</th></t<>	\$3,013,308								•
L.       Neutrements       SO	\$0								-
2.       Plainting effective brought outside (x)       \$1,979       \$1,936       9,893       13,850       17,807       21,764       26,380         3.       Less: Accumulated Depreciation       \$1,979       \$5,936       9,893       13,850       17,807       21,764       26,380         4.       CWIP - Non Interest Bearing       \$0       <	\$0								
1       Less: Accumulated Depreciation       \$1,979       5,936       9,893       13,850       17,807       21,764       26,380         4.       CWIP - Non Interest Bearing       \$0       0       \$0	n/a	3,013,308	2,261,238	2,261,238	2,261,238	2.261.238	2.261.238	\$2,261,238	2 Plant In-Service/Depreciation Base (A)
4.       CWIP - Non Interest Bearing       50       52,247,388       52,243,431       52,239,474       52,986,929       50       50       50       50       50       50       50       50       51,303       52,247,381       52,243,431       52,241,452       2,613,201       70       70       70       70       70       <	n/a	26,380	21,764	17,807					
6. Average Net Investment       2,257,281       2,253,324       2,249,367       2,245,410       2,241,452       2,613,201         7. Return on Average Net Investment <ul> <li>a. Equity Component grossed up for taxes (B)</li> <li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li> <li>3,663</li> <li>3,657</li> <li>3,957</li> <li>4,815</li> <li>b. Amortization (F)</li> <li>c. Dismantlement (G)</li> </ul>	n/a	\$0_	\$0	\$0	\$0	\$0			•
Kvelage Net Investment     Letter     Letter     Letter       7. Return on Average Net Investment       a. Equity Component grossed up for taxes (B)     14,399     14,374     14,349     14,323     14,298     16,670       b. Debt Component (Line 6 x debt rate x 1/12) (C)     3,663     3,657     3,650     3,644     3,837     4,241       8. Investment Expenses     a. Depreciation (E)     3,957     3,957     3,957     3,957     3,957     3,957     4,615       b. Amortization (F)     c. Dismantlement (G)     C)     C     C     C)     C     C)	n/a	\$2,986,929	\$2,239,474	\$2,243,431	\$2,247,388	\$2,251,345	\$2,255,303	\$2,259,260	5. Net Investment (Lines 2 - 3 + 4)
7.         Return on Average Net Investment         14,399         14,374         14,349         14,323         14,298         16,670           b.         Debt Component (Line 6 x debt rate x 1/12) (C)         3,663         3,657         3,650         3,644         3,637         4,241           8.         Investment Expenses         a.         Depreciation (E)         3,957         3,957         3,957         3,957         3,957         3,957         4,615           b.         Amorization (F)         Dismantlement (G)         Dismantlement (G)         14,374         14,349         14,323         14,298         16,670	n/a	2,613,201	2,241,452	2,245,410	2,249,367	2,253,324	2,257,281		6. Average Net Investment
a.       Equity Component glossed up to takes (E)       14,553       14,557       3,650       3,644       3,637       4,241         b.       Debt Component (Line 6 x debt rete x 1/12) (C)       3,663       3,657       3,650       3,644       3,637       4,241         8.       Investment Expenses       a.       Depreciation (E)       3,957       3,957       3,957       3,957       3,957       4,615         b.       Amorization (F)       c.       Dismantlement (G)       3,957       3,9	95,619		14.000	11.000	44.040				
8. Investment Expenses a. Depreciation (E) b. Amontization (F) c. Dismantlement (G)	24,325	,							
a. Depreciation (E) 3,957 3,957 3,957 3,957 3,957 4,615 b. Amortization (F) c. Dismantlement (G)	24,020	1,241	3,007	3,044	3,050	3,057	3,003		<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>
a. Depretation (E) b. Amortization (F) c. Dismantlement (G)	26,380	4.615	3.957	3.957	3 957	3 057	3 957		
c. Dismanilement (G)					5,557	0,007	3,807		• • • •
e. Other									
9. Total System Recoverable Expenses (Lines 7 & 8) \$22,019 \$21,988 \$21,956 \$21,924 \$21,893 \$25,526	\$146,324	\$25,526	\$21,893	\$21 924	\$21,956	\$21 QRS	\$22.010		

Notes:

(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Floride Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Spill Prevention (Project No. 23) (in Dollars)

Line	Beginning of Period <u>Amount</u>	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
Investments     Expenditures/Additions     Clearings to Plant     C. Retirements     d. Other		\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 (\$366,141) \$0 \$0	\$0 \$59 \$0 \$0	\$0 \$415 \$0 \$0	\$0 (\$1) \$0 \$0	\$0 (\$365,668) \$0 \$0
2. Plant-In-Service/Depreciation Base (A)	\$20,000,812	20,000,812	20,000,812	19,634,671	19,634,730	19,635,145	19,835,144 3,552,707	n/a n/a
Less: Accumulated Depreciation     CWIP - Non Interest Bearing	\$3,317,828 \$0	3,357,312 0	3,396,797	3,435,991 0	3,474,896 0	3,513,801 0	3,552,707	n/a
5. Net investment (Lines 2 - 3 + 4)	\$16,682,984	\$16,643,499	\$16,604,015	\$16,198,679	\$16,159,834	\$16,121,343	\$16,082,437	n/a
6. Average Net Investment		16,663,242	16,623,757	16,401,347	16,179,257	16,140,589	16,101.890	n/a
<ol> <li>Return on Average Net Investment         <ol> <li>Equity Component grossed up for taxes (B)</li> <li>Debt Component (Line 6 x debt rate x 1/12) (C)</li> </ol> </li> </ol>		106,295 27,041	106.043 26,977	104,624 26,616	103,207 26,256	102,961 26,193	102,714 26,130	\$625,844 \$159,213
<ul> <li>8. Investment Expenses</li> <li>a. Depreciation (E)</li> <li>b. Amortization (F)</li> <li>c. Dismantiement (G)</li> <li>d. Property Expenses</li> <li>e. Other</li> </ul>		39,484	<b>39,484</b>	<b>39,195</b>	38,905	38,905	38,905	<b>\$234,879</b>
9. Total System Recoverable Expenses (Lines 7 & 8)	_	\$172,820	\$172.504	\$170,435	\$168,368	\$168,059	\$167,750	\$1.019.936

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Spill Prevention (Project No. 23) (in Dollars)

Line		Beginning of Period Amount	Ju <del>ly</del> Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month
1.	-								
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<ul> <li>Clearings to Plant</li> </ul>		\$13,429	\$17,945	\$10,880	\$13,429	(\$999,232)	\$13,426	(\$1,295,791)
	c. Retirements		\$0	\$0	(\$7,065)	\$0	\$0	\$0	(\$7,065)
	d. Other		<b>\$</b> 0	<b>\$</b> 0	\$0	<b>\$</b> 0	(\$170,385)	\$0	(\$170,385)
2,	Plant-In-Service/Depreciation Base (A)	\$19,635,144	19,648,573	19,666,518	19,677,398	19,690,827	18,691,595	18,705,021	n/a
3.	Less: Accumulated Depreciation	\$3,552,707	3,591,623	3,630,522	3,662,343	3,701,253	3,568,051	3,605,332	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0	0	0	0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$16,082,437	\$16.056.950	\$16,035,996	\$16.015.055	\$15,989,573	\$15,123,544	\$15,099,689	n/a
6.	Average Net Investment		16,069,693	16,046,473	16,025,525	16,002,314	15,556,558	15,111,616	n/a
7.									
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		102,509	102,360	102,227	102,079	99,235	96,397	1,230,651
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		26,078	26,040	26,006	25,969	25,245	24,523	313,074
8.	Investment Expenses								
	a. Depreciation (E)		38,916	38,899	38,886	38,911	37,183	37,281	464,954
	b. Amortization (F)								
	c. Dismantlement (G)								
	<ul> <li>Property Expenses</li> </ul>								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)	_	\$167,503	\$167.300	\$167.119	\$166,958	\$161,663	\$158,201	\$2,008,679

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equily Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EL

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantiement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Manatee Reburn (Project No. 24) (in Dollars)

Lin	<u>e</u>	Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1.	Investments . a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 (\$578,976) (\$578,976) \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 (\$578,976) (\$578,976) \$0
2. 3. 4.		\$31,749,547 \$5,649,884 \$0	31,749,547 5,718,674 0	31,749,547 5,787,465 0	31, 170,571 5,276,653 0	31, 170, 571 5, 344, 189 0	31,170,571 5,411,725 0	31,170,571 5,479,261 Q	n/a n/a n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$26,099,663	\$26,030,872	\$25,962,082	\$25,893,918	\$25,826,382	\$25,758,846	\$25,691,309	n/a
6.	Average Net Investment		26,065,268	25,996,477	25,928,000	25,860,150	25,792,614	25,725,078	n/a
7.	Return on Average Net Investment a. Equity Component grossed up for taxes (B) b. Debt Component (Line 6 x debt rate x 1/12) (C)		166,270 <b>42,299</b>	165,831 42,187	165,395 42,076	164,962 41,966	164,531 41,856	164,100 41,747	\$991,090 \$252,131
	Investment Expenses a. Depreciation (E) b. Amortization (F) c. Dismanuement (G) d. Property Expenses e. Other		68,791	68,791	68, 163	67,536	67,536	67,536	\$408,354
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$277,360	\$276,809	\$275.634	\$274,464	\$273,9 <u>2</u> 4	\$273,383	\$1.651.574

Notes:

 Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equily Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Manatee Reburn (Project No. 24) (in Dollars)

Line	<u>1</u>	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1,	Investments		••	••	•	•0		\$0	\$0
	a. Expenditures/Additions		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	(\$578,976)
	b. Clearings to Plant		-	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	(\$578,976)
	c. Retirements d. Other		\$0 \$0	30 \$0	\$0 \$0	\$0	\$0	• \$0	(\$676,876) \$0
	u. Outer		••	••	••	-			
2.	Plant-In-Service/Depreciation Base (A)	\$31,170,571	31,170,571	31,170,571	31,170,571	31,170,571	31,170,571	31,170,571	n/a
3.	Less: Accumulated Depreciation	\$5,479,261	5,546,798	5,614,334	5,681,870	5,749,406	5,816,943	5,884,479	n/a
4.	CWIP - Non Interest Bearing	\$0	0	.0	Q		<u> </u>	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$25,691,309	\$25,623,773	\$25,556,237	\$25.488.701	\$25,421,165	\$25,353,628	\$25,286,092	n/a
6.	Average Net investment		25,657,541	25,590,005	25,522,469	25,454,933	25,387,396	25,319,860	n/a
7.	Return on Average Net Investment								(
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		163,669	163,239	162,808	162,377	161,946	161,515	1,966,644
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		41,637	41,527	41,418	41,308	41,199	41,089	500,309
8.	Investment Expenses								
	a. Depreciation (E)		67,536	67,536	67,536	67,536	67,536	67,536	813,571
	<li>b. Amortization (F)</li>								
	c. Dismantlement (G)								
	<li>d. Property Expenses</li>								
	e. Other								
0	Total System Recoverable Expenses (Lines 7 & 8)	-	\$272,843	\$272,302	\$271,762	\$271,221	\$270.681	\$270,141	\$3,280,524

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.
 (G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreclation and Taxes For Project: Port Everglades ESP (Project No. 25) (in Dollars)

Lin	e.	Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 \$0 \$0 \$0	. \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0
2. 3. 4.	Less: Accumulated Depreciation	\$81,901,169 \$16,073,562 \$0	81,901,169 16,225,378 0	81,901,169 16,377,195 0	81,901,169 16,529,011 0	81,901,169 16,680,828 0	81,901,169 16,832,645 0	81,901,169 16,984,461 0	n/a n/a n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$65,827,608	\$65,675,791	\$65,523,975	\$65.372.158	\$65,220,341	\$65,068,525	\$64,916,708	n/a
6.	Average Net Investment		65,751,699.53	65,599,883	65,448,066	65,296,250	65,144,433	64,992,617	n/a
7.	Return on Average Net Investment a. Equity Component grossed up for taxes (B) b. Debt Component (Line 6 x debt rate x 1/12) (C)		419,430.01 106,702	418,462 106,455	417,493 106,209	416,525 105,963	415,556 105,716	414,588 105,470	\$2,502,053 \$636,516
8.	Investment Expenses a. Depreciation (E) b. Amortization (F) c. Dismantiement (G) d. Property Expenses e. Other		151,817	151,817	151,817	151,817	151,817	151,817	\$910,900
9.	Total System Recoverable Expenses (Lines 7 & 8)	_	\$677,948	\$676,734	\$675.519	\$674,304	\$673.089	\$671.874	\$4,049,469

Notes:

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 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rete of 35%; the monthly Equily Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martín (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company, Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Port Everglades ESP (Project No. 25) (in Dollars)

Line	Beginning of Period Amount	July Estimate	August Estimale	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1. Investments								
a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
<li>b. Clearings to Plant</li>		\$0	\$0	\$0	\$0	\$0	\$0	\$0
c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
d. Other		\$0	\$0	\$0	\$0	\$0	\$0	\$0
2. Plant-In-Service/Depreciation Base (A)	\$81,901,169	81,901,169	81,901,169	81,901,169	81,901,169	81,901,169	81,901,169	n/a
3. Less: Accumulated Depreciation	\$16,984,461	17,136,278	17,288,094	17,439,911	17,591,728	17,743,544	17,895,361	n/a
4. CWIP - Non Interest Bearing	\$0	0	0	00	Q		0	n/a
5. Net Investment (Lines 2 - 3 + 4)	\$64,916,708	\$64,764,892	\$64.613.075	\$64,461,258	\$64,309,442	\$64,157,625	\$64,005,809	n/a
6. Average Net investment		64,840,800	64,688,983	64,537,167	64,385,350	64,233,534	64,081,717	n/a
7. Return on Average Net Investment								
<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		413,619	412,651	411,683	410,714	409,746	408,777	4,969,243
<ul> <li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li> </ul>		105,224	104,977	104,731	104,485	104,238	103,992	1,264,162
8. Investment Expenses								
a. Depreciation (E)		151,817	151,817	151,817	151,817	151,817	151,817	1,821,799
<li>b. Amortization (F)</li>								
c. Dismantlement (G)								
d. Property Expenses								
e. Other								
9. Total System Recoverable Expenses (Lines 7 & 8)	_	\$670.660	\$669,445	\$668,230	\$667,015	\$665,800	\$664,586	\$8.055.204

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.51425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-(B) FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSolo (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Parlod January through June 2012

#### Return on Capital Investments, Depreciation and Taxes <u>For Project: UST Removal / Replacement (Project No. 26)</u> (In Dolfars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month
1.	Investments		\$0	**	•0	*0	*0	*0	<b>e</b> 0
	a. Expenditures/Additions		\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
	b. Clearings to Plant c. Retirements		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
	c. Retirements d. Other		\$U \$341	30 \$0	50 50	\$0 \$0	\$0 \$3,581	\$3,581	\$7,503
	u. Onia		4541	•0		40	\$0,001	40,001	•1,000
2.	Plant-In-Service/Depreciation Base (A)	\$115,447	115,447	115,447	115,447	115,447	115,447	115,447	n/a
З.	Less: Accumulated Depreciation	\$13,336	13,878	14,080	14,283	14,485	18,268	22,051	n/a
4.	CWIP - Non Interest Bearing	\$0		0	0	0	0	0_	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$102.111	\$101,568	\$101,366	\$101,164	\$100.962	\$97,179	\$93,396	n/a
6.	Average Net Investment		101,840	101,467	101,265	101,063	99,070	95,287	n/a
7.	Return on Average Net Investment								
	<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		650	647	646	645	632	608	\$3,827
	<li>Debt Component (Line 6 x debt rate x 1/12) (C)</li>		165	165	164	164	161	155	\$974
8.	Investment Expenses								
	a. Depreciation (E)		202	202	202	202	202	202	\$1,212
	b. Amortization (F)								
	c. Dismantlement (G)								
	d. Property Expenses								
	e. Other								
9	Total System Recoverable Expenses (Lines 7 & 8)	·	\$1,017	\$1,014	\$1,012	\$1,011	\$995	\$964	\$6,013

Notes:

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(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(8) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EL

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EL.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: UST Removal / Replacement (Project No. 26) (in Dollars)

Lin	<u>e</u>	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month
1	Investments			••		••			
	a. Expenditures/Additions		\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant			\$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements		\$0	\$0	\$0 . \$0	\$0	\$0	\$0	\$0
	d. Other		\$0	<b>\$</b> 0	. 50	\$0	\$0	<b>\$</b> 0	\$7,503
2.	Plant-In-Service/Depreciation Base (A)	\$115,447	115,447	115,447	115,447	115,447	115,447	115,447	n/a
3.	Less: Accumulated Depreciation	\$22,051	22,253	22,455	22,657	22,859	23,061	23,263	r/a
4.	CWIP - Non Interest Bearing	<u>\$0</u>	Q	0	Q	<u> </u>	Q	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$93,396	\$93,194	\$92.992	\$92,790	\$92.588	\$92,385	\$92,183	n/a
6.	Average Net Investment		93,295	93,093	92,891	92,689	92,487	92,284	n/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		595	594	593	591	590	589	7,379
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		151	151	151	150	150	150	1,877
8.	Investment Expenses								
	a. Depreciation (E)		202	202	202	202	202	202	2,424
	b. Amortization (F)								
	c. Dismantlement (G)								
	<li>d. Property Expenses</li>								
	e. Other								
	Tetal Onder Description Frances (line 200)	_						*040	£11 600
9.	Total System Recoverable Expenses (Lines 7 & 8)	_	\$949	\$947	\$945	\$944	\$942	\$940	\$11,680

Notes:

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 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.81425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward Is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amonization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: CAIR Compliance (Project No. 31) (in Dollars)

Lin	<u>e</u>	Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June A <u>ctual</u>	Six Month Amount
1.	Investments e. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$11,474 \$0 \$0 (\$38,187)	\$880 (\$53,464) (\$124,608) (\$54,366)	\$965 \$1,540,099 (\$107,071) (\$24,922)	\$1,759,723 (\$105,678) (\$105,677) (\$461)	\$3,030,309 \$1,849,831 \$0 (\$6,215)	\$2,041,546 \$134,670,043 \$0 (\$1,464)	\$6,844,897 \$137,900,831 (\$337,355) (\$125,615)
2.	Plant-In-Service/Depreciation Base (A)	\$165,405,318	165,405,318	165,351,854	166,891,953	166,786,275	168,636,106	303,306,149	n/a
З.	Less: Accumulated Depreciation	\$9, 183, 187	9,504,868	9,685,705	9,915,135	10,171,972	10,530,622	11,051,640	n/a
4.	CWIP - Non Interest Bearing	\$326,732,729	326,744,297	326.745.176	325,022,127	326,781,849	327,980,245	196,871,975	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$482,954,860	\$482,644,746	\$482,411,325	\$481.998.945	\$483,396,152	\$486,085.728	\$489,126,484	n/a
6.	Average Net Investment		482,799,803	482,528,036	482,205,135	482,697,548	484,740,940	487,606,106	n/a
7.	Return on Average Net Investment a. Equity Component grossed up for taxes (B) b. Debt Component (Line 6 x debt rate x 1/12) (C)		3,079,779 783,488	3,078,045 783,046	3,075,986 782,522	3,079,127 783,322	3,092,162 786,638	3,110,439 791,287	\$18,515,539 \$4,710,303
8.			359,869	359,811	361,422	362,976	364,865	522,481	\$2,331,423
	c. Dismantiement (G) d. Property Expenses e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)	-	\$4,223,136	\$4,220,903	\$4,219,930	\$4,225,424	\$4,243,665	\$4,424,207	\$25,557,265

Notes:

 Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EL

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company. Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes Ear Project: CAIR Compliance (Project No. 31) (in Dollars)

Line	<u>.</u>	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1.	Investments								
	<ul> <li>Expenditures/Additions</li> </ul>		\$3,821,859	\$0	\$0	\$0	\$0	\$0	\$10,466,756
	<ul> <li>Clearings to Plant</li> </ul>		\$1,027,046	\$202,740,480	\$2,346,999	\$1,568,234	\$1,893,419	\$4,106,536	\$351,583,545
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	(\$337,355)
	d. Other		\$0	\$0	\$0	50	\$0	<b>\$</b> 0	(\$125,615)
2.	Plant-In-Service/Depreciation Base (A)	\$303,306,149	304,333,195	507,073,675	509,420,673	510,988,907	512,882,326	516,988,862	n/a
3.	Less: Accumulated Depreciation	\$11,051,640	11,711,406	12,591,921	13,694,614	14,801,549	15,912,233	17,029,418	n/a
4.	CWIP - Non Interest Bearing	\$196.871.975	200,493,834	0	00	0	Q		n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$489,126,484	\$493.115,622	\$494,481,753	\$495,726,059	\$496,187,359	\$496,970,093	\$499,959,444	n/a
6.	Average Net Investment		491,121,053	493,798,688	495, 103,906	495,956,709	496,578,726	498,464,769	r/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		3,132,861	3,149,941	3,158,267	3,163,707	3,167,675	3,179,706	37,467,696
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		796,991	801,337	803,455	804,839	805,848	808,909	9,531,680
8.	Investment Expenses								
	a. Depreciation (E)		659,767	880,515	1,102,693	1,106,934	1,110.685	1,117,185	8,309,202
	b. Amortization (F)								
	c. Dismantlement (G)								
	d. Property Expenses								
	e. Other								
•	Total System Recoverable Expenses (Lines 7 & 8)		\$4,589,619	\$4,831,793	\$5,064,415	\$5,075,480	\$5.084,208	\$5,105,799	\$55,308,578

Notes:

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(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equily per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amonization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSolo (37), NASA (38) & Martin (39).

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#### Elorida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: MATS (Project No. 33) (In Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1.	Investments 8. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	<b>\$</b> 0
	b. Clearings to Plant		\$0	\$429	\$10,421	\$18,847	\$14,404	\$24,667	\$68,768
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$106,879,091	106,879,091	106,879,520	106,889,941	106,908,788	106,923,193	106,947,859	ា/ខ
Э.	Less: Accumulated Depreciation	\$4,650,632	4,882,170	5,113,708	5,345,257	5,576,837	5,808,450	6,040,104	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0	0	0	0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$102,228,459	\$101,996,921	\$101,765,812	\$101,544,684	\$101.331.952	\$101,114,742	<u>\$100,907,755</u>	n/a
6.	Average Net Investment		102,112,690	101,881,367	101,655,248	101,438,318	101,223,347	101,011,249	n/a
7.						· • • • • • • • •	<b></b>		
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		651,377	649,901	648,459	647,075	645,704	644,351	\$3,886,866
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		165,708	165,333	164,966	164,614	164,265	163,921	\$988,808
8.	Investment Expenses a. Depreciation (E) b. Amortization (F)		231,538	231,538	231,549	231,579	231,614	231,654	\$1,389,472
	c. Dismantlement (G) d. Property Expenses e. Other						·		
9.	Total System Recoverable Expenses (Lines 7 & 8)	-	\$1,048,623	\$1.046,772	\$1,044,974	\$1,043,268	\$1,041,583	\$1,039,926	\$6,265,146

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantiement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Floride Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: MATS (Project No. 33) (in Dollars)

Line	_	Beginning of Period <u>Amount</u>	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 \$11,885 \$0 \$0	\$0 \$24,069 \$0 \$0	\$0 \$23,965 \$0 \$0	\$0 \$23,829 \$0 \$0	\$0 \$24,351 \$0 \$0	\$0 \$65,550 \$0 \$0	\$0 \$242,417 \$0 \$0
2. 3. 4.	Plant-In-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non Interest Bearing	\$106,947,859 \$6,040,104 \$0	106,959,744 6,271,797 0	106,983,813 6,503,528 0	107,007,778 6,735,311 0	107,031,607 6,967,146 0	107,055,958 7,199,033 0	107,121,508 7,431,018 0	n/a n/a n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$100,907,755	\$100,687,948	\$100.480.286	\$100,272,468	\$100,064,462	\$99,856,925	\$99,690,491	n/a
6.	Average Net investment		100,797,852	100,584,117	100,376,377	100,168,465	99,960,693	99,773,708	n/a
7.	Return on Average Net Investment a. Equity Component grossed up for taxes (B) b. Debt Component (Line 6 x debt rate x 1/12) (C)		642,989 163,575	641,626 163,228	640,301 162,891	638,975 162,553	637,649 162,216	636,456 161,913	7,724,862 1,965,184
8.	Investment Expenses a. Depreciation (E) b. Amortization (F) c. Dismantiement (G) d. Property Expenses e. Other		231,692	231,731	231,783	231,835	231,887	231,985	2,780,386
9.		-	\$1,038,256	\$1,036,585	\$1,034,975	\$1,033,363	\$1.031,753	\$1,030,354	\$12,470,431

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, peges 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantiement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project:Martin Water Comp (Project No. 35) (in Dollars)

Line		Beginning of Period <u>Amount</u>	January Actual	February Actual	March Actual	April Actual	May Actual	June Actuel	Six Month Amount
1.	Investments		•	•	**	*0	*0	•0	\$0
	a. Expenditures/Additions		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	50 \$0
	b. Clearings to Plant c. Retirements		\$0 \$0	\$0 \$0	\$0 \$0	30 \$0	\$0 \$0	\$0	\$0
	c. Retirements d. Other		\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$235.391	235,391	235,391	235,391	235,391	235,391	235,391	n/a
	Less: Accumulated Depreciation	\$13,654	14,066	14,477	14,889	15,301	15,713	16,125	n/a
	CWIP - Non Interest Bearing	\$0	0	0	0	0	0	0	n/a
5.	Net investment (Lines 2 - 3 + 4)	\$221,738	\$221,326	\$220.914	\$220,502	\$220,090	\$219.678	\$219,265	n/a
6.	Average Net Investment		221,532	221,120	220,708	220,296	219,884	219,472	n/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		1,413	1,411	1,408	1,405	1,403	1,400	\$8,439
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		360	359	358	357	357	356	\$2,147
8.	Investment Expenses								
	a. Deprectation (E)		412	412	412	412	412	412	\$2,472
	<li>b. Amonization (F)</li>								
	c. Dismantlement (G)								
	d. Property Expenses								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$2,185	\$2,181	\$2,178	\$2,175	\$2,171	\$2,168	\$13,058

Notes:

(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) March 2010 forward, the Gross-up factor for taxes uses 0.81425, which reflects the Federal income Tax Rate of 35%; the monthly Equily Component of 4.7019% reflects a 10% return on equily per FPSC Order No PSC-10-0153-FOF-EL

(C) March 2010 forward is 1.9473% reflects a 10% RDE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.
 (G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes <u>For Project:Martin Water Comp (Project No. 35)</u> (in Dollars)

Line	<u>.</u>	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1.	Investments		*0	<b>6</b> 0	<b>\$</b> 0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions b. Cleanings to Plant		\$0 \$0	\$0 \$0	\$0	sõ	\$0	\$0	\$0
	b. Cleanings to Plant c. Retirements		\$0 \$0	\$0	\$0	<b>\$</b> 0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$235,391	235,391	235,391	235,391	235,391	235,391	235,391	n/a
З.	Less: Accumulated Depreciation	\$16,125	16,537	16,949	17,361	17,773	18,185	18,597	n/a
4.	CWIP - Non Interest Bearing	\$0	0	<u> </u>	0	0	0	0_	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$219,266	\$218,854	\$218,442	\$218,030	\$217,618	\$217,206	\$216,794	n/a
6.	Average Net Investment		219,060	218,648	218,236	217,824	217,412	217,000	n/a
7.					4 995	1 200	1 007	1,384	16,784
	<ul> <li>a. Equity Component grossed up for taxes (B)</li> <li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li> </ul>		1,397 355	1,395 355	1,392 354	1,390 353	1,387 353	352	4,270
8.	investment Expenses								
	a. Depreciation (E)		412	412	412	412	412	412	4,943
	b. Amortization (F)								
	c. Dismantlement (G)								
	d. Property Expenses								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)	-	\$2,165	\$2,162	\$2,158	\$2,155	\$2,152	\$2,148	\$25,998

Notes:

(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EL

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

## Return on Capital Investments, Depreciation and Taxes For Project: Low Level Rad Waste - LLW (Project No. 36) (in Dollars)

Line		Beginning of Period <u>Amount</u>	January Actuat	February Actual	March Actual	April Actual	May Actual	June Actuel	Six Month
1.			<b>6</b> 2	**					
	a. Expenditures/Additions b. Clearings to Plant		\$0	\$0 \$010	\$0	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0
			\$1,958	\$213	(\$7)	(\$2)	\$3	\$2,175	\$4,340
	c. Retirements d. Other		\$0	<b>\$</b> 0	\$0	\$0	\$0	\$D	\$0
	a. Other		\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$6,449,693	6,451,651	6,451,864	6,451,857	6,451,855	6,451,857	6,454,033	rv/a
3.	Less: Accumulated Depreciation	\$69,214	78,890	88,567	98,245	107,923	117,601	127,280	n/a
4.	CWIP - Non Interest Bearing	\$0	00	0	0	0	0	Q	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$6,380,480	\$6,372,762	\$6.363,296	\$6,353,612	\$6,343.932	\$6,334,257	\$6,326,753	n/a
6.	Average Net Investment		6,376,621	6,368,029	6,358,454	6,348,772	6,339,094	6,330,505	n/a
7.	Return on Average Net Investment		-						
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		40,676	40,622	40,561	40,499	40,437	40,382	\$243,177
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		10,348	10,334	10,318	10,303	10.287	10,273	\$61,864
8.	Investment Expenses			•					
	a. Depreciation (E)		9,676	9.678	9,678	9,678	9,678	9,679	\$58,066
	b. Amortization (F)		.,						
	c. Dismantlement (G)						,		
	d. Property Expenses								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$60,700	\$60,633	\$60.557	\$60,479	\$60,402	\$60,335	\$363,107

Notes:

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 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.81425, which reflects the Federal Income Tax Rate of 35%; the monthly Equily Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

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#### Fiorida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Low Level Rad Waste - LLW (Project No. 36). (in Dollars)

<u>Line</u>	Beginning of Period Amount	July Estimale	August Estimate	September Estimete	October Estimate	November Estimate	December Estimate	Tweive Month
1. Investments								
a. Expenditures/Additions		\$0	\$0	<b>\$</b> 0	\$0	\$0	\$0	\$0
<li>b. Clearings to Plant</li>		\$0	. \$0	\$0	\$0	\$0	\$0	\$4,340
c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
d. Other		\$0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0
2. Plant-In-Service/Depreciation Base (A)	\$6,454,033	6,454,033	6,454,033	6,454,033	6,454,033	6,454,033	6,454,033	n/a
3. Less: Accumulated Depreciation	\$127,280	136,961	146,642	156,323	166,004	175,685	185,366	n/a
4. CWIP - Non Interest Bearing	\$0	0	0	0	Q	0	0_	n/a
5. Net Investment (Lines 2 - 3 + 4)	\$6,326,753	\$6.317,072	\$6.307.391	\$6,297,710	\$6,288.029	\$6,278,347	\$6,268,666	n/a
6. Average Net Investment		6,321,912	6,312,231	6,302,550	6,292,869	6,283,188	6,273,507	n/a
7. Return on Average Net Investment								
<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		40,327	40,266	40,204	40,142	40,080	40,019	484,215
<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		10,259	10,243	10,228	10,212	10,196	10,181	123,183
8. Investment Expenses								
a. Depreciation (E)		9,681	9,681	9,681	9,681	9,681	9,681	116,153
b. Amortization (F)								
c. Dismantlement (G)								
<ul> <li>Property Expenses</li> </ul>								
e. Other								
9. Total System Recoverable Expenses (Lines 7 & 8)	-	\$60,268	\$60,190	\$60,113	\$60,035	\$59,958	\$59,880	\$723,551

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreclation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

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#### Florida Power & Light Company

Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Desoto Next Generation Solar Energy Center (Project No. 37) (in Dollars)

<u>Line</u> 1.		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
	a. Expenditures/Additions		\$55,682	\$1,985	\$0	\$0	\$0	<b>\$</b> 0	\$57,667
	b. Clearings to Plant		\$0	(\$184,983)	\$63,399	\$58	(\$633,999)	(\$354)	(\$755,878)
	c. Retirements		\$0	\$0	\$0	\$0	\$0	(\$4,837)	(\$4,837)
	d. Other		<b>\$</b> 0	\$0	\$0	\$0	\$0	(\$448)	(\$448)
2.	Plant-In-Service/Depreciation Base (A)	\$152,746,852	152,746,852	152,561,870	152,625,269	152,625,327	151,991,328	151,990,974	n/a
3.	Less: Accumulated Depreciation & Dismentlement	\$10,999,047	11,422,983	11,846,720	12,270,344	12,694,055	13,116,894	13,533,576	n/a
4.	CWIP - Non Interest Bearing		55,682	57,667	57,667	57,667	57,667	57,667	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$141,747,806	\$141,379,551	\$140,772,817	\$140.412.592	\$139,988,940	\$138,932,101	\$138,515,065	n/a
6.	Average Net Investment		141,563,678	141,076,184	140,592,705	140,200,766	139,460,520	138,723,583	n/a
	a. Average ITC Balance		40,709,121	40,587,055	40,464,989	40,342,923	40,220,857	40,098,791	
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		973,617	970,296	967,000	964,288	959,354	954,442	\$5,788,996
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		238,641	237,823	237,012	236,349	235,121	233,898	\$1,418,843
8.	Investment Expenses								
	a. Depreciation (E)		417,878	417,678	417,565	417,652	416,780	415,908	\$2,503,461
	b. Amortization (F)								
	c. Dismantlement (G)		6,059	6,059	6,059	6,059	6,059	6,059	\$36,354
	d. Property Expenses		<i></i>						
	e. Amortization ITC Solar		(160,395)	(160,395)	(160,395)	(160,395)	(160,395)	(160,395)	(\$962,370)
9.	Total System Recoverable Expenses (Lines 7 & 8)	—	\$1,475,800	\$1,471,460	\$1,467,240	\$1,463,953	\$1,456,920	\$1,449,912	\$8,785,284

Notes:

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(A) (B) & (C) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59. For solar projects the return on Investment calculation is comprised of two parts:

Average Net Investment

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity Debt Component: Return of 1.9473% reflects a 10% ROE. Per FPSC Order No PSC-10-0153-FOF-EI

Average Unamortized ITC Balance:

Equity Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 5.98% reflects a 10% return on equity Debt Component: Return of 2.21% based on the 10% ROE. Per FPSC Order PSC 10-0153-FOF-EI

(D) (E) N/A

Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39). (G)

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## Fiorida Power & Light Company

Environmental Cost Recovery Clause For the Period July through December 2012

# Return on Capital Investments, Depreciation and Taxes

For Project: Desolo Next Generation Solar Energy Center (Project No. 37)

(in Dollars)

Line	3	Beginning of Period Amount	July Estimate	August Estimate	September Estimale	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1.									
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$57,667
	<li>b. Clearings to Plant</li>		\$0	\$0	\$0	\$57, <del>6</del> 67	\$0	(\$12,103)	(\$710,314)
	c. Retirements		\$0	\$0	\$0	\$0	\$0	(\$12,103)	(\$16,940)
	d. Other		\$0	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0	\$0	(\$448)
2.	Plant-In-Service/Depreciation Base (A)	\$151,990,974	151,990,974	151,990,974	151,990,974	152,048,642	152,048,642	152,036,539	n/a
3.	Less: Accumulated Depreciation & Dismantlement	\$13,533,576	13,955,543	14,377,510	14,799,476	15,221,522	15,643,479	16,053,165	n/a
4.	CWIP - Non Interest Bearing	\$57,667	57,667	57,667	57,667	0	0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$138,515,065	\$138.093.099	\$137.671,132	\$137,249,165	\$136.827.119	\$136,405,162	\$135,983,373	n/a
6.	Average Net Investment	138,723,583	138,304,082	137,882,115	137,460,149	137,038,142	136,616,141	136, 194, 268	n/a
	a. Average ITC Balance	40,098,791	39,976,725	39,854,659	39,732,593	39,610,527	39,488,461	39,366,395	
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		951,554	948,651	945,747	942,844	939,940	937,037	11,454,770
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		233,191	232,479	231,768	231,056	230,345	229,633	2,807,315
8.	Investment Expenses								
	a. Depreciation (E)		415,908	415,908	415,908	415,987	415,898	415,730	4,998,799
	b. Amortization (F)								
	c. Dismantlement (G)		6,059	6,059	6,059	6,059	6,059	6,059	\$72,708
	d. Property Expenses								
	e. Amortization ITC Solar		(160,395)	(160,395)	(160,395)	(160,395)	(160,395)	(160,395)	(\$1,924,740)
٩	Total System Recoverable Expenses (Lines 7 & 8)	_	\$1,446,316	\$1,442,702	\$1,439,087	\$1,435,551	\$1,431,847	\$1,428,065	\$17,408,852

#### Notes:

(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) & (C) For solar projects the return on investment calculation is comprised of two parts:

Average Net investment

Equity Component; Gross-up factor for taxes uses 0.51425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity Debt Component; Return of 1.9473% reflects a 10% ROE. Per FPSC Order No PSC-10-0153-FOF-El

Average Unamortized ITC Balance:

Equity Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 5.98% reflects a 10% return on equity Debt Component; Return of 2.21% based on the 10% ROE. Per FPSC Order PSC 10-0153-FOF-El

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company

Environmental Cost Recovery Clause For the Period January through June 2012

# Return on Capital Investments, Depreciation and Taxes

#### For Project: Space Coast Next Generation Solar Energy Center (Project No. 38) (in Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actu <del>a</del> l	June Actual	Six Month Amount
1.	Investments								
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		\$0	<b>\$</b> 0	(\$233)	\$0	\$0	\$75	(\$158)
	c. Retirements		<b>\$</b> 0	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	<b>\$</b> 0	(\$568)	\$4	(\$3)	\$1	(\$566)
2.	Plant-In-Service/Depreciation Base (A)	\$70,633,358	70,633,358	70,633,358	70,633,125	70,633,125	70,633,125	70,633,200	n/a
3.	Less: Accumulated Depreciation & Dismantlement	\$4,049,709	4,248,025	4,445,785	4,642,977	4,840,740	5,038,497	5,236,257	n/a
4.	CWIP - Non Interest Bearing	<b>\$</b> 0	0	0	0	0	0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$66.583.649	\$66.385.333	\$66,187,573	\$65,990,148	\$65,792,385	\$65.594.629	\$65,396,943	n/a
6.	Average Net Investment		66,484,491	66,286,453	66,088,861	65,891,267	65,693,507	65,495,786	n/a
	a. Average ITC Balance		17,352,939	17,301,750	17,250,561	17, 199, 372	17,148,183	17,096,994	
7.	Return on Average Net Investment								
	<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		454,191	452,839	451,490	450, 141	448,791	447,441	\$2,704,893
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		111,690	111,357	111,025	110,693	110,361	110,029	\$665,155
8.	Investment Expenses								
	a. Depreciation (E)		195,404	194,848	194,848	194,847	194,847	194,848	\$1,169,642
	b. Amortization (F)								
	c. Dismantlement (G)		2,912	2,912	2,912	2,912	2,912	2,912	\$17,472
	d. Property Expenses								–
	e. Amortization ITC Solar		(67,263)	(67,263)	(67,263)	(67,263)	(67,263)	(67,263)	(\$403,578)
		_							
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$696,934	\$694,693	\$693.012	\$691,331	\$689.648	\$687,966	\$4,153,585

Notes:

Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59. (A) (B) & (C) For solar projects the return on investment calculation is comprised of two parts: Average Net Investment Equity Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity Debt Component: Return of 1.9473% reflects a 10% ROE. Per FPSC Order No PSC-10-0153-FOF-EI Average Unamortized ITC Balance: Equity Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal income Tax Rate of 35%; the monthly Equity Component of 5.98% reflects a 10% return on equity Debt Component: Return of 2.21% based on the 10% ROE. Per FPSC Order PSC 10-0153-FOF-EI (D) N/A Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

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Applicable amortization period(s). See Form 42-8E, pages 55-59. (F)

Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39). (G)

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## Florida Power & Light Company

Environmental Cost Recovery Clause For the Period July through December 2012

## Return on Capital Investments, Depreciation and Taxes <u>For Project: Space Coast Next Generation Solar Energy Center (Project No. 38)</u>

(in Dollars)	

Lin	ð.	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1.	-								
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		\$0	\$0	\$0	\$0	\$0	\$0	(\$158)
	c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	<b>S</b> O	\$0	\$0	\$0	(\$566)
2.	Plant-in-Service/Depreciation Base (A)	\$70,633,200	70,633,200	70,633,200	70,633,200	70,633,200	70,633,200	70,633,200	n/a
3.	Less: Accumulated Depreciation & Dismantlement	\$5,236,257	5,434,017	5,631,776	5,829,536	6,027,296	6,225,055	6,422,815	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0	0	0	0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$65.396.943	\$65,199,183	\$65.001.424	\$64.803.664	\$64,605,904	\$64,408,145	\$64,210,385	n/a
6.	Average Net Investment		65,298,063	65, 100, 303	64,902,544	64,704,784	64,507,025	64,309,265	n/a
	a. Average ITC Balance	\$17,096,994	17,045,805	16,994,616	16,943,427	16,892,238	16,841,049	16,789,860	
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		446,091	444,740	443,390	442,040	440,690	439,339	5,361,183
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		109,697	109,365	109,033	108,701	108,369	108,036	1,318,355
8.	Investment Expenses								
	a. Depreciation (E)		194,848	194,848	194,848	194,848	194,848	194,848	2,338,728
	b. Amortization (F)							•	
	c. Dismantlement (G)		2,912	2,912	2,912	2,912	2,912	2,912	34,944
	d. Property Expenses								
	e. Amortization ITC Solar		(67,263)	(67,263)	(67,263)	(67,263)	(67,263)	(67,263)	(\$807,156)
9.	Total System Recoverable Expenses (Lines 7 & 8)	_	\$686.284	\$684.602	\$682.920	\$681,237	\$679,555	\$677,872	\$8,246.055

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) & (C) For solar projects the return on investment calculation is comprised of two parts: Average Net Investment

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity Debt Component: Return of 1.9473% reflects a 10% ROE. Per FPSC Order No PSC-10-0153-FOF-EI

Average Unamortized ITC Balance:

Equity Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 5.98% reflects a 10% return on equity Debt Component; Return of 2.21% based on the 10% ROE. Per FPSC Order PSC 10-0153-FOF-EI

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Mantin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes <u>For Project: Martin Next Generation Solar Energy Center (Project No. 39)</u> (in Dollars)

	Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
Investments								
a. Expenditures/Additions		\$134,405	\$993,558	\$1,553,421	\$1,275,748	831,229.56	456,630.15	\$5,244,992
b. Clearings to Plant		\$1,098,617	\$175,301	\$217,674	\$305,879	\$30,682	\$40,442	\$1,868,595
c. Retirements		\$0	\$0	<b>\$</b> 0	\$0	(\$28,995)	\$0	(\$28,995)
d. Other		(\$9,848)	(\$547)	\$1	(\$1,380)	(\$36)	(\$1,753)	(\$13,563)
Plant-In-Service/Depreciation Base (A)	\$399,543,272	400,641,889	400,817,190	401,034,864	401,340,743	401,371,425	401,411,867	n/a
Less: Accumulated Depreciation & Dismantlement	\$14,329,602	15,450,812	16,582,746	17,715,769	18,848,147	19,953,356	21,085,941	n/a
CWIP - Non Interest Bearing	\$973,287	283,117	1,274,541	2.738.772	3,908,581	4,739,810	5,196,441	n/a
Net Investment (Lines 2 - 3 + 4)	\$386.186.957	\$385.474.195	\$385.508.986	\$386.057.868	\$386.401.176	\$386,157,879	\$385.522.367	n/a
Average Net Investment		385,830,576	385,491,590	385,783,427	386,229,522	386,279,528	385,840,123	n/a
a. Average ITC Balance		119,225,809	118,882,011	118,538,213	1 18, 194, 4 15	117,850,617	117,506,819	
Return on Average Net Investment								
<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		2,667,929	2,665,171	2,666,436	2,668,686	2,668,409	2,665,010	\$16,001,640
b. Debt Component (Line 6 x debt rate x 1/12) (C)		652,224	651,599	651,997	652,646	652,652	651,864	\$3,912,982
Investment Expenses								
a. Depreciation (E)		1,102,211	1,103,634	1,104,174	1,104,912	1,105,393	1,105,491	\$6,625,815
b. Amortization (F)								
		28,847	28,847	28,847	28,847	28,847	28,847	\$173,082
e. Amortization ITC Solar		(451,751)	(451,751)	(451,751)	(451,751)	(451,751)	(451,751)	(\$2,710,506)
Total System Recoverable Expenses (Lines 7 & 8)		\$3,999,460	\$3.997.500	\$3.999.704	\$4.003.340	\$4.003.549	\$3,999,460	\$24,003,013
	b.     Clearings to Plant       c.     Retirements       d.     Other       Plant-In-Service/Depreciation Base (A)     Less: Accumulated Depreciation & Dismantlement       CWIP - Non Interest Baring	Investments       Amount         a.       Expenditures/Additions         b.       Clearings to Plant         c.       Retirements         d.       Other         Plant-In-Service/Depreciation Base (A)       \$399,543,272         Less: Accumulated Depreciation & Dismantlement       \$14,329,602         CWIP - Non Interest Bearing       \$14,329,602         CWIP - Non Interest Bearing       \$3973,287         Net Investment (Lines 2 - 3 + 4)       \$386,186,957         Average Net Investment       \$396,186,957         a.       Average ITC Belance         Return on Average Net Investment       \$390,000         a.       Equity Component grossed up for taxes (B)         b.       Debt Component (Line 6 x debt rate x 1/12) (C)         Investment Expenses       a.         a.       Depreciation (E)         b.       Amoritzation (F)         c.       Dismantlement (G)         d.       Property Expenses         e.       Amoritzation ITC Solar	Amount       Actual         Investments       a.       Expenditures/Additions       \$134,405         b.       Clearings to Plant       \$1,098,617         c.       Retirements       \$0         d.       Other       \$399,543,272       400,641,889         Less: Accumulated Depreciation Base (A)       \$399,543,272       400,641,889         Less: Accumulated Depreciation & Dismantlement       \$14,329,602       15,450,812         CWIP - Non Interest Bearing       \$386,186,957       \$385,474,195         Net Investment (Lines 2 - 3 + 4)       \$386,186,957       \$385,474,195         Average Net Investment       385,830,576       3         a.       Average ITC Balance       119,225,809         Return on Average Net Investment       385,224       \$2,667,929         b.       Debt Component grossed up for taxes (B)       2,667,929         b.       Debt Component (Line 6 x debt rate x 1/12) (C)       \$52,224         Investment Expenses       1,102,211       1,102,211         b.       Amorization (F)       2,847         c.       Dismantlement (G)       28,847         d.       Property Expenses       (451,751)	Amount         Actual         Actual           Investments         a.         Expenditures/Additions         \$134,405         \$993,558           b.         Clearings to Plant         \$1,098,617         \$175,301           c.         Retirements         \$0         \$0           d.         Other         \$399,543,272         400,641,889         400,817,190           Less:         Accumulated Depreciation Base (A)         \$399,543,272         400,641,889         400,817,190           Less:         Accumulated Depreciation & Dismantlement         \$14,329,602         15,450,812         16,582,746           CWIP - Non Interest Bearing         \$396,186,957         \$385,474,195         \$395,508,986           Average Net Investment         385,830,576         385,491,590         a.           a.         Average ITC Balance         119,225,809         118,882,011           Return on Average Net Investment         a.         Equity Component grossed up for taxes (B)         2,667,929         2,665,171           b.         Debt Component grossed up for taxes (B)         1,102,211         1,103,634           b.         Amount (Line 6 x debt rate x 1/12) (C)         852,224         651,599           Investment Expenses         a.         Deprecietion (E)         1,102,	Amount         Actual         Actual         Actual           Investments         a.         Expenditures/Additions         \$134,405         \$993,558         \$1,553,421           b.         Clearings to Plant         \$1,098,617         \$177,301         \$217,674           c.         Retirements         \$0         \$0         \$0         \$0           d.         Other         \$1,998,617         \$177,301         \$217,674           c.         Retirements         \$0         \$0         \$0         \$0           d.         Other         \$1,998,617         \$177,501         \$217,674           Less: Accumulated Depreciation Base (A)         \$399,543,272         400,641,889         400,817,190         401,034,884           Less: Accumulated Depreciation & Dismantlement         \$14,329,602         15,450,812         16,582,746         17,715,769           CWIP - Non Interest Bearing         \$386,186.957         \$385,474,195         \$386,057,868         \$386,057,868           Average Net Investment         385,830,576         385,491,590         385,783,427         a.           a.         Average ITC Balance         119,225,809         118,882,011         118,538,213           Return on Average Net Investiment         a.         Seb_410 com	Amount         Actual         Actual         Actual         Actual           investments         Expenditures/Additions         \$134,405         \$993,558         \$1,553,421         \$1,275,748           b.         Clearings to Plant         \$1,098,617         \$175,301         \$217,674         \$305,879           c.         Retirements         \$0         \$0         \$0         \$0         \$0           d.         Other         \$399,543,272         400,641,889         400,817,190         401,034,864         401,340,743           Less:         Accumulated Depreciation Base (A)         \$399,543,272         400,641,889         400,817,190         401,034,864         401,340,743           Less:         Accumulated Depreciation & Dismantlement         \$392,543,272         400,641,889         400,817,190         401,034,864         401,340,743           Less:         Accumulated Depreciation & Dismantlement         \$392,543,272         283,117         1.274,574         \$2,738,772         3,908,581           Net Investment (Lines 2 - 3 + 4)         \$386,185,957         \$385,474,195         \$385,508,986         \$386,057,868         \$386,041,176           Average Net Investment         a.         Average ITC Balance         119,225,809         118,882,011         118,538,213         118,19	Arrowst         Actual         Actual         Actual         Actual         Actual         Actual           Investments         Expenditures/Additions         \$134,405         \$993,558         \$1,553,421         \$1,275,748         \$831,229,56           b.         Clearings to Plant         \$1098,617         \$175,301         \$217,674         \$305,879         \$30,682           c.         Ratinements         \$0         \$0         \$0         \$0         \$134,405         \$293,558         \$1,574         \$305,879         \$30,682           c.         Ratinements         \$1,098,617         \$177,501         \$217,674         \$305,879         \$30,682           d.         Other         \$399,543,272         400,641,889         400,817,190         401,034,864         401,340,743         401,371,425           Less: Accumulated Depreciation & Dismantement         \$399,543,272         400,641,889         400,817,190         401,034,864         401,340,743         401,371,425           Less: Accumulated Depreciation & Dismantement         \$393,543,272         400,641,889         400,817,190         401,034,864         401,340,743         401,317,1425           Less: Accumulated Depreciation & Sase,192         \$338,186,957         \$385,474,195         \$385,057,868         \$386,057,868	Amount         Actual         Actual<

Notes:

 Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) & (C) For solar projects the return on investment celculation is comprised of two parts: Average Net Investment Equilty Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity Debi Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity Debi Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 5.98% reflects a 10% return on equity Debi Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 5.98% reflects a 10% return on equity Debi Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 5.98% reflects a 10% return on equity Debi Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 5.98% reflects a 10% return on equity Debi Component; Return of 2.21% based on the 10% ROE. Per FPSC Order PSC 10-0153-FOF-EI
 (D) N/A
 (E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.
 (F) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSolo (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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## Florida Power & Light Company

Environmental Cost Recovery Clause For the Period July through December 2012.

#### Return on Capital Investments, Depreciation and Taxes Eor Project: Martin Next Generation Solar Energy Center (Project No. 39) (in Dollars)

_Lin	e_		Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1.	Investments									
	a,	Expenditures/Additions		\$1,213,679	\$521,805	\$700,552	\$602,905	\$547,538	\$1,436,532	\$10,268,003
	b.	Clearings to Plant		\$6,270,504	\$286,144	\$200,552	\$1,377,905	\$547,538	\$1,536,808	\$12,088,046
	С,	Retirements		\$0	\$0	\$0	\$0	\$0	\$0	(\$28,995)
	d,	Other		\$0	<b>\$</b> 0	\$0	\$0	<b>\$</b> 0	\$0	(\$13,563)
2.		o/Depreciation Base (A)	\$401,411,867	407,682,371	407,968,516	408,169,068	409,546,973	410,094,511	411,631,319	n/a
З.		ated Depreciation & Dismantlement	\$21,085,941	22,228,956	23,380,987	24,534,339	25,690,512	26,849,334	28,011,021	n/a
4.	CWIP - Non Int	erest Bearing	\$5,196,441	139,615	375,276	875,276	100,276	100,276	. 0	ก/ฮ
5.	Net Investment	(Lines 2 - 3 + 4)	\$385,522,367	\$385,593,030	\$384,962,805	\$384.510.005	\$383.956.736	\$383.345.453	\$383.620.297	n/a
6.	Average Net In	vestment		385,557,698	385,277,917	384,736,405	384,233,371	383,651,095	383,482,875	n/a
	a.	Average ITC Balance	\$117,506,819	117,163,021	116,819,223	116,475,425	116,131,627	115,787,829	115,444,031	
7.	Return on Aven	age Net Investment								
	a.	Equity Component grossed up for taxes (B)		2,662,612	2,660,231	2,656,181	2,652,376	2,648,065	2,646,396	31,927,501
	b.	Debt Component (Line 6 x debt rate x 1/12) (C)		651,330	650,801	649,847	648,955	647,935	647,587	7,809,437
8.	Investment Exp	enses								
	Ð.	Depreciation (E)		1,114,168	1,123,184	1,124,505	1,127,327	1,129,974	1,132,840	13,377,813
	b.	Amortization (F)								
	С.	Dismantlement (G)		28,847	28,847	28,847	28,847	28,847	28,847	346, 164
	d.	Property Expenses								
	e.	Amonization ITC Solar		(451,751)	(451,751)	(451,751)	(451,751)	(451,751)	(451,751)	(\$5,421,012)
9,	Total System R	ecoverable Expenses (Lines 7 & 8)		\$4,005,206	\$4.011.311	\$4,007,628	\$4,005,754	\$4,003,071	\$4,003,919	\$48,039,902
9.	Total System R	ecoverable Expenses (Lines 7 & 8)		\$4.005.206	\$4.011.311	\$4.007.628	\$4,005,754	\$4,003,071	\$4,003,919	\$48,039

Notes:

(A) (B) & (C) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

For solar projects the return on investment calculation is comprised of two parts:

Average Net Investment

N/A

Equity Component: Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity Debt Component: Return of 1.9473% reflects a 10% ROE. Per FPSC Order No PSC-10-0153-FOF-EI

Average Unamortized ITC Balance:

Equity Component; Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 5.98% reflects a 10% return on equity Debt Component: Return of 2.21% based on the 10% ROE. Per FPSC Order PSC 10-0153-FOF-EI

(D) (E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39). (G)

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Manatee Temporary Heating System (Project No. 41) (In Dollars)

Line	Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month
1. Investments		\$0	<b>\$</b> 0	\$0	\$0	<b>\$</b> 0	\$0	\$0
<ul> <li>a. Expenditures/Additions</li> <li>b. Clearings to Plant</li> </ul>		\$0 \$0	\$113	(\$2,548)	\$8,839	\$65	(\$4)	\$6,465
c. Retirements		\$0	\$0	\$0	\$0,050	\$0	\$0	\$0
d. Other		\$2,395	(\$0)	(\$32)	\$0	so	\$0	\$2,363
2. Plant-In-Service/Depreciation Base (A)	\$8,383,225	8,383,225	8,383,338	8,380,790	8,389,629	8,389,694	8,389,690	n/a
3. Less: Accumulated Depreciation	\$156,478	166,906	174,940	182,939	190,981	199,036	207,091	n/a
4. CWIP - Non Interest Bearing	\$0	0	0	0	0	0	0	n/a
5. Net Investment (Lines 2 - 3 + 4)	\$8,226,747	\$8,216,319	\$8,208,398	\$8,197,851	\$8,198,648	\$8,190,658	\$8,182,599	n/a
6. Average Net Investment		8,221,533	8,212,359	8,203,125	8,198,250	8,194,653	8,186,628	n/a
7. Return on Average Net Investment								
<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		52,445	52,387	52,328	52,297	52,274	52,222	\$313,952
<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		13,342	13,327	13,312	13,304	13,298	13,285	\$79,869
8. Investment Expenses								
<ul> <li>Depreciation (E)</li> </ul>		8,034	8,034	8,031	8,042	8,055	8,055	\$48,251
b. Amortization (F)								
c. Dismantlement (G)								
d. Property Expenses e. Other								
9. Total System Recoverable Expenses (Lines 7 & 8)		\$73,821	\$73,748	\$73,671	\$73,642	\$73,627	\$73,563	\$442,072

Notes:

 (A) Applicable beginning of pariod and end of pariod depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Floride Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Manatee Temporary Heating System (Project No. 41) (in Dollars)

Lini		Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1.									
	a. Expenditures/Additions		\$0	<b>\$</b> 0	\$0	\$0	\$0	\$0	\$0
	<ul> <li>Clearings to Plant</li> </ul>		\$0	\$0	\$0	\$0	\$0	\$3,481,414	\$3,487,879
	c. Retirements		\$0	\$0	<b>S</b> O	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	<b>\$</b> 0	\$0	\$0	\$2,363
2.	Plant-In-Service/Depreciation Base (A)	\$8,389,690	8,389,690	8,389,690	8,389,690	8,389,690	8,389,690	11,871,104	n/a
3.	Less: Accumulated Depreciation	\$207,091	215,147	223,202	231,258	239,313	247,369	258,761	n/a
4.		\$0	0	Q	0	0	0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$8,182,599	\$8,174,543	\$8,166,488	\$8,158,432	\$8,150,377	\$8,142,321	\$11,612,343	n/a
6.	Average Net Investment		8,178,571	8,170,515	8,162,460	8,154,405	8,146,349	9,877,332	n/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		52,171	52,120	52,068	52,017	51,966	63,007	637,301
	b. Debt Component (Line 6 x debt rate x 1/12) (C)		13,272	13,259	13,246	13,233	13,220	16,029	162, 128
8.	Investment Expenses								
	a. Depreciation (E)		8,055	8,055	8,055	8,055	8,055	11,392	99,920
	<li>b. Amortization (F)</li>								
	<ul> <li>Dismantlement (G)</li> </ul>								
	<ol> <li>Property Expenses</li> </ol>								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$73,499	\$73,434	\$73,370	\$73,305	\$73,241	\$90,428	\$899,349

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantiament only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: PTN Cooling Canal Monitoring System (Project No. 42) (in Dollars)

Line		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month
1.				•	*0	<b>*</b> 0	•0	*0	¢0.
	a. Expenditures/Additions		\$0	\$0 \$0	\$0 \$0	\$D \$0	\$0 \$0	\$0 \$0	\$0 \$0
	b. Clearings to Ptent		\$0			\$0 \$0	\$0 \$0	30 \$0	30 \$0
	c. Retirements		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	30 \$0	30 \$0
	d. Other		30	<b>2</b> 0	<b>a</b> U	\$U	<b>4</b> 0	30	40
2.	Plant-In-Service/Depreciation Base (A)	\$3,582,753	3,582,753	3,582,753	3,582,753	3,582,753	3,582,753	3,582,753	n/a
З.	Less: Accumutated Depreciation	\$67,592	72,966	78,341	83,715	89,089	94,463	99,837	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0		0	0	00	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$3,515,161	\$3,509,786	\$3,504,412	\$3,499,038	\$3,493,664	\$3,488,290	\$3,482,916	n/a
6.	Average Net Investment		3,512,473	3,507,099	3,501,725	3,496,351	3,490,977	3,485,603	n/ə
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		22,406	22,372	22,338	22,303	22,269	22,235	\$133,922
	<ul> <li>Debt Component (Line 6 x debt rate x 1/12) (C)</li> </ul>		5,700	5,691	5,683	5,674	5,665	5,656	\$34,069
8.	Investment Expenses								
	a. Depreciation (E)		5,374	5,374	5,374	5,374	5,374	5,374	\$32,245
	<li>b. Amortization (F)</li>								
	<li>c. Dismantlement (G)</li>								
	<ol> <li>Property Expenses</li> </ol>								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$33,480	\$33,437	\$33,394	\$33,351	\$33,308	\$33,265	\$200,236

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EL

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: PTN Cooling Canal Monitoring System (Project No. 42) (in Dollars)

Line	Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month
<ol> <li>Investments         <ul> <li>Expenditures/Additions</li> </ul> </li> </ol>		<b>\$</b> 0	\$0	\$0	<b>\$</b> 0	<b>\$</b> 0	\$0	<b>\$</b> 0
b. Clearings to Plant		\$0 \$0	\$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	30 \$0
c. Retirements		\$0	\$0	\$0	\$0	\$0	\$0	\$0
d. Other		\$0	<b>\$</b> 0	\$0	\$0	\$0	\$0	\$0
2. Plant-In-Service/Depreciation Base (A)	\$3,582,753	3,582,753	3,582,753	3,582,753	3,582,753	3,582,753	3,582,753	n/a
3. Less: Accumulated Depreciation	\$99,837	105,211	110,585	115,960	121,334	126,708	132,082	n/a
<ol><li>CWIP - Non Interest Bearing</li></ol>	\$0	Q	0	0	0	Q	0	n/a
5. Net Investment (Lines 2 - 3 + 4)	\$3,482,916	\$3,477,542	\$3,472,168	\$3,466,793	\$3,461,419	\$3.456.045	\$3,450,671	n/a
6. Average Net Investment		3,480,229	3,474,855	3,469,480	3,464,106	3,458,732	3,453,358	n/a 1
7. Return on Average Net investment								
<ol> <li>Equity Component grossed up for taxes (B)</li> </ol>		22,200	22,166	22,132	22,098	22,063	22,029	266,610
<ul> <li>Debt Component (Line 6 x debt rate x 1/12) (C</li> </ul>	*)	5,648	5,639	5,630	5,622	5,613	5,604	67,825
8. Investment Expenses								
a. Depreciation (E)		5,374	5,374	5,374	5,374	5,374	5,374	64,490
<li>b. Amortization (F)</li>								- • · · · ·
c. Dismantlement (G)								
<ul> <li>Property Expenses</li> </ul>								
e. Other	•							
	· · _							
<ol><li>Total System Recoverable Expenses (Lines 7 &amp; 8)</li></ol>	_	\$33,222	\$33,179	\$33,136	\$33.093	\$33,050	\$33,007	\$398,925

Notes:

 Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.51425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Martin Plant Barley Barber Swamp Iron Mitigation ( Project No. 44 ) (in Dollars)

Line	<u>.</u>	Beginning of Period Arriount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1.	Investments			•	\$0	<b>\$</b> 0	\$0	\$0	\$0
	a. Expenditures/Additions		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$14	\$0	\$14
	b. Clearings to Plant c. Retirements		\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements d. Other		\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.	Plant-In-Service/Depreciation Base (A)	\$164.704	164,704	164,704	164,704	164,704	164,719	164,719	n/a
3.	Less: Accumulated Depreciation	\$1,820	2,108	2,396	2,684	2,972	3,261	3,549	n/a
4.	•	\$0	0	0	0	9	0		n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$162,885	\$162,596	\$162,308	\$162.020	\$161,732	\$161,458	\$161,170	n/a
6.	Average Net Investment		162,741	162,452	162,164	161,876	161,595	161,314	n/a
7.	Return on Average Net Investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		1,038	1,036	1,034	1,033	1,031	1,029	\$6,201
	<ul> <li>Debt Component (Line 6 x debt rate x 1/12) (C)</li> </ul>		264	264	263	263	262	262	\$1,578
8.	Investment Expenses								
	a. Depreciation (E)		288	288	288	288	288	288	\$1,729
	<li>b. Amortization (F)</li>								
	c. Dismantiement (G)								
	d. Property Expenses								
	e. Other								
9	Total System Recoverable Expenses (Lines 7 & 8)	_	\$1.590	\$1,588	\$1,586	\$1,584	\$1,581	\$1,579	\$9,508

Notee:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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## Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: Martin Plant Barley Barber Swamp Iron Mitigation ( Project No. 44 ) (in Dollars)

Line		Beginning of Period Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month
	Investments								
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0
	<li>b. Clearings to Plant</li>		\$0	\$0	\$0	<b>\$</b> 0	\$0	\$0	\$14
	c. Retirements		<b>\$</b> 0	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	· \$0	<b>\$</b> 0	\$0	<b>\$</b> 0	. <b>\$</b> 0
2.	Plant-In-Service/Depreciation 8ase (A)	\$164,719	164,719	164,719	164,719	164,719	164,719	164,719	n/a
3.	Less: Accumulated Depreciation	\$3,549	3,837	4,125	4,414	4,702	4,990	5,278	n/a
4.	CWIP - Non Interest Bearing	\$0	0	0	0	0	0	0	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$161,170	\$160,881	\$160,593	\$160,305	\$160,017	\$159,728	\$159,440	n/a
6.	Average Net Investment		161,026	160,737	160,449	160,161	159,872	159,584	n/a
7.	Return on Average Net Investment								40.007
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		1,027	1,025	1,024	1,022	1,020	1,018	12,337
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		261	261	260	260	259	259	3,138
8.	Investment Expenses								
	a. Depreciation (E)		288	288	288	288	288	288	3,459
	<li>b. Amortization (F)</li>								
	c. Dismantlement (G)								
	<li>d. Property Expenses</li>								
	e. Other								
	Total System Recoverable Expenses (Lines 7 & 8)	. –	\$1,577	\$1,574	\$1,572	\$1,570	\$1,568	\$1,565	\$18,934

Notes:

 (A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.
 (B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EL

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantiement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

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#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: 800 MW ESP (Project No. 45) (in Dollars)

		Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
Investment	s						r conces	Noidai	
a.	Expenditures/Additions		\$36,909,229	\$10,003,840	\$921,282	\$1,201,143	\$4,086,932	\$4,115,746	\$57,238,172
þ.	Clearings to Plant		\$0	\$0	\$0	\$0	\$0	\$0	\$0
С,	Retirements		\$0	\$0	\$0	\$0	\$0	\$0	50
d.	Other		(\$35,121)	(\$26)	\$5	\$1	(\$5)	(\$12)	(\$35,159)
	rvice/Depreciation Base (A)	\$0	D	0	0	0	0	Q	n/a
	mulated Depreciation	\$0	(35,121)	(35, 148)	(35,143)	(35,142)	(35, 147)	(35,159)	n/a
CWIP - Nor	n interest Bearing	\$0	36,909,229	46,913,069	47,834,351	49,035,493	53,122,425	57,238,172	ri/a
Net Investr	nent (Lines 2 - 3 + 4)	<b>\$</b> 0	\$36,944,350	\$46.948.216	\$47,869,493	\$49.070.635	\$53,157,572	\$57,273,331	n/a
Average Ne	et investment		18,472,175	41,946,283	47,408,855	48,470,064	51,114,103	55,215,452	n/a
Return on A	Average Net Investment								
а.	Equity Component grossed up for taxes (B)		117,834	267,575	302,421	309,190	326.057	352 219	\$1,675,297
Ь.	Debt Component (Line 6 x debt rate x 1/12) (C)		29,977	68,070	76,935	78,657	82,948	89,604	\$426,191
Investment	Expenses								
a.	Depreciation (E)		0	0	0	O	n	n	\$0
b.	Amortization (F)					-	•	0	<b>4</b> 0
с.	Dismantlement (G)								
d.	Property Expenses								
e.	Other								
<b>.</b>									
Rab Irab.c.d.	eturn on A	Debt Component (Line 6 x debt rate x 1/12) (C) vestment Expenses Depreciation (E) Amortization (F) Dismantiement (G) Property Expenses	eturn on Average Net Investment Equity Component grossed up for taxes (B) Debt Component (Line 6 x debt rate x 1/12) (C) ivestment Expenses Depreciation (E) Amortization (F) Dismantiement (G) Property Expenses	eturn on Average Net Investment Equity Component grossed up for taxes (B) 117,834 Debt Component (Line 6 x debt rate x 1/12) (C) 29,977 ivestment Expenses Depreciation (E) 0 Amortization (F) 0 Dismantiment (G) Property Expenses	eturn on Average Net Investment Equity Component grossed up for taxes (B) 117,834 267,575 Debt Component (Line 6 x debt rate x 1/12) (C) 29,977 68,070 ivestment Expenses Depreciation (E) 0 0 Amortization (F) Dismanilament (G) Property Expenses	eturn on Average Net Investment Equity Component grossed up for taxes (B) 117,834 267,575 302,421 Debt Component (Line 6 x debt rate x 1/12) (C) 29,977 68,070 76,935 ivestment Expenses Depreciation (E) 0 0 0 Amortization (F) Dismanilement (G) Property Expenses	eturn on Average Net Investment Equity Component grossed up for taxes (B) 117,834 267,575 302,421 309,190 Debt Component (Line 6 x debt rate x 1/12) (C) 29,977 68,070 76,935 78,657 ivestment Expenses Depreciation (E) 0 0 0 0 0 Amortization (F) Dismantimement (G) Property Expenses	eturn on Average Net Investment         Equity Component grossed up for taxes (B)         117,834         267,575         302,421         309,190         326,057           .         Debt Component grossed up for taxes (B)         117,834         267,575         302,421         309,190         326,057           .         Debt Component (Line 6 x debt rate x 1/12) (C)         29,977         68,070         76,935         78,657         82,948           ivestment Expenses	eturn on Average Net Investment         ++++++++++++++++++++++++++++++++++++

Notes:

(A) (B)

Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59. March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI. (C)

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.

(G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Martin (39).

Totals may not add due to rounding.

#### Form 42-8E Page 52 of 59

#### Florida Power & Light Company Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes For Project: 800 MW ESP (Project No. 45) (in Doltars)

Line		Beginning of Period Amount	July Estimate _	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
	investments								
	a. Expenditures/Additions		\$383,369	\$1,538,798	\$12,476,771	\$6,772,536	\$4,749,262	\$4,066,386	\$87,225,294
	<li>b. Clearings to Plant</li>		\$54,745,447	\$836,917	\$5,935,265	\$0	\$0	\$0	\$61,517,629
	c. Retirements		\$D	\$0	\$0	\$0	\$0	\$0	\$0
	d. Other		\$0	\$0	\$0	\$0	\$0	<b>\$</b> 0	(\$35,159)
2.	Plant-In-Service/Depreciation Base (A)	\$0	54,745.447	55,582,364	61,517,629	61,517,629	61,517,629	61,517,629	n/a
З.	Less: Accumulated Depreciation	(\$35,159)	24,149	143,670	270,529	403,817	537,105	670,393	n/a
4.	CWIP - Non Interest Bearing	\$57,238,172	2,876,094	3,577,975	10,119,481	16,892,017	21,641,279	25,707,665	n/a
5.	Net Investment (Lines 2 - 3 + 4)	\$57,273,331	\$57,597,392	\$59,016,669	\$71,366,581	\$78.005.829	\$82,621,803	\$86,554,901	n/a
6.	Average Net Investment		57,435,362	58,307,030	65, 191, 625	74,686,205	80,313,816	84,588,352	n/a
7.	Return on Average Net investment								
	<ul> <li>Equity Component grossed up for taxes (B)</li> </ul>		366,380	371,940	415,857	476 423	512,322	539,589	21,198,051
	<li>b. Debt Component (Line 6 x debt rate x 1/12) (C)</li>		93,206	94,621	105,793	121,201	130,333	137,270	5,392,727
8.	Investment Expenses								
	a. Depreciation (E)		59,308	119,522	126,858	133,288	133,288	133,288	3.036.976
	b. Amortization (F)								
	c. Dismantlement (G)								
	<ul> <li>Property Expenses</li> </ul>								
	e. Other								
9.	Total System Recoverable Expenses (Lines 7 & 8)		\$518,894	\$586,083	\$648,509	\$730,912	\$775,943	\$810,147	\$6,171,976

Notes:

(A) Applicable beginning of period and end of period depreciable base by production plant name(s), unit(s), or plant account(s). See Form 42-8E, pages 55-59.

(B) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equily per FPSC Order No PSC-10-0153-FOF-EI.

(C) March 2010 forward is 1.9473% reflects a 10% ROE per FPSC Order No PSC-10-0153-FOF-EI.

(D) N/A

(E) Applicable depreciation rate or rates. See Form 42-8E, pages 55-59.

(F) Applicable amortization period(s). See Form 42-8E, pages 55-59.
 (G) Dismantlement only applies to Solar projects - DeSoto (37), NASA (38) & Mertin (39).

Totals may not add due to rounding.

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#### Form 42-8E Page 53 of 59

#### Floride Power & Light Company Environmental Cost Recovery Clause

For the Period January through June 2012

#### Return on Capital Investments, Depreciation and Taxes <u>Deferred Gain on Sales of Emission Allowances</u> (in Dollars)

Line	Beginning of Period Amount	January Actual	February Actual	March Actual	April Actual	May Actual	June Actual	Six Month Amount
1 Working Capital - Dr (Cr)								
a 158.100 Allowance Inventory	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
b 158.200 Allowances Withheld	0	0	0	0	0	0	0	
c 182.300 Other Regulatory Assets-Losses	0	0	0	0	0	0	U (* 400 000)	
d 254.900 Other Regulatory Liabilities-Gains	(1,797,695)	(1,747,905)	(1,698,116)	(1,648,326)	(1,599,658)	(1,549,838)	(1,499,929)	
2 Total Working Capital	(\$1,797,695)	(\$1,747,905)	(\$1.698.116)	(\$1,648,326)	(\$1.599.658)	(\$1,549,838)	(\$1,499,929)	
3 Average Net Working Capital Balance		(1,772,800)	(1,723,010)	(1,673,221)	(1,623,992)	(1,574,748)	(1,524,883)	
4 Return on Average Net Working Capital Balance a Equity Component grossed up for taxes (A)		(11,309)	(10,991)	(10,673)	(10,359)	(10,045)	(9,727)	
b Debt Component (Line 6 x 1.6698% x 1/12)		(2,877)	(2,796)	(2,715)	(2,635)	(2,556)	(2,475)	
5 Total Return Component		(\$14,186)	(\$13,787)	(\$13,389)	(\$12,995)	(\$12.601)	(\$12,202)	(\$79,159) (D)
6 Expense Dr (Cr)								
a 411.800 Gains from Dispositions of Allowances		(49,790)	(49,790)	(49,790)	(50,223)	(49,953)	(49,909)	
b 411.900 Losses from Dispositions of Allowances		0	0	0	0	0	0	
c 509,000 Allowance Expense 7 Net Expense (Lines 6a+6b+6c)		(\$49,790)	(\$49,790)	(\$49,790)	(\$50,223)	(\$49,953)	(\$49,909)	(\$299,455) (E)
8 Total System Recoverable Expenses (Lines 5+7)		(63,975)	(63,577)	(63,178)	(63,218)	(62,554)	(62,111)	
B Recoverable Costs Allocated to Energy     B Recoverable Costs Allocated to Demand		(63,975) 0	(63,577) 0	(63,178) 0	(63,218) 0	(62,554) 0	(62,111) 0	
9 Energy Jurisdictional Factor 10 Demand Jurisdictional Factor		98.08128% 98.01395%	98.08128% 98.01395%	98.08128% 98.01395%	98.08128% 98.01395%	98.08128% 98.01395%	98.08128% 98.01395%	
, IV Demand Junsattabilai Pactor		33.3103076	00.0100070	00.0100010				
11         Retail Energy-Related Recoverable Costs (B)           12         Retail Demand-Related Recoverable Costs (C)		(62,748) 0	(62,357) 0	(61,966) 0	(62,005) 0	( <del>6</del> 1,354) 0	(60,919) 0	
13 Total Jurisdictional Recoverable Costs (Lines 11+12)	_	(\$62,748)	(\$62,357)	(\$61,966)	(\$62,005)	(\$61,354)	(\$60,919)	

Notes: (A)

65

March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rate of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(B) Line 8a times Line 9

(C) Line 8b times Line 10

(D) Line 5 is reported on Capital Schedule

(E) Line 7 is reported on O&M Schedule

In accordance with FPSC Order No. PSC-94-0393-FOF-EI, FPL has recorded the gains on sales of emissions allowances as a regulatory liability.

Totals may not add due to rounding.

#### Form 42-8E Page 54 of 59

#### Environmental Cost Recovery Clause For the Period July through December 2012

#### Return on Capital Investments, Depreciation and Taxes <u>Deferred Gain on Sales of Emission Allowances</u> (in Dollars)

_Lir	ne	Beginning of Perlod Amount	July Estimate	August Estimate	September Estimate	October Estimate	November Estimate	December Estimate	Twelve Month Amount
1	Working Capital Dr (Cr)								
	a 158.100 Allowance Inventory	\$0	\$0	\$0	\$0	\$0	. \$0	\$0	
	b 158.200 Allowances Withheld	\$0	0	U	U	0	U	U	
	c 182.300 Other Regulatory Assets-Losses	\$0 (1,499,929)	(1.450.020)	(1,400,111)	(1,350,201)	(1,300,292)	(1,250,383)	(1,200,474)	
-	d 254.900 Other Regulatory Liabilities-Gains	(\$1,499,929)	(\$1,450,020)	(\$1,400,111)	(\$1,350,201)	(\$1,300,292)	(\$1,250,383)	(\$1,200,474)	
4		141403.0201	(#1,400,020)		101.000.2011	101100012021	1400.0007	1011200,1111	
3	Average Net Working Capital Belance		(1,474,974)	(1,425,065)	(1,375,156)	(1,325,247)	(1,275,338)	(1,225,429)	
4	Return on Average Net Working Capital Balance								
	a Equity Component grossed up for taxes (A)		(9,409)	(9,090)	(8,772)	(8,454)	(8,135)	(7,817)	
,	b Debt Component (Line 6 x 1.6698% x 1/12)		(2,394)	(2,313)	(2,232)	(2,151)	(2,070)	(1,989)	
5	Total Return Component		(\$11.802)	(\$11,403)	(\$11,004)	(\$10,604)	(\$10,205)	(\$9,806)	<u>(\$143,983)</u> (D)
6	Expense Dr (Cr)			(40.000)	(40.000)	(40.000)	(40.000)	((0.000)	
	a 411.800 Gains from Dispositions of Allowances		(49,909)	(49,909)	(49,909)	(49,909)	(49,909)	(49,909)	
	b 411,900 Losses from Dispositions of Allowances		0	0	0	0	0	0	
	c 509.000 Allowance Expense		0	0	0		(* 10 000)		(100.010) (5)
7	Net Expense (Lines 6a+6b+6c)		(\$49,909)	(\$49,909)	(\$49,909)	(\$49,909)	(\$49,909)	(\$49.909)	(\$598.910) (E)
8	a Recoverable Expenses (Lines 5+7) a Recoverable Costs Allocated to Energy b Recoverable Costs Allocated to Demand		(61,712) (61,712) 0	(61,312) (61,312) 0	(60,913) (60,913) 0	(60,513) (60,513) 0	(60,114) (60,114) 0	(59,715) (59,715) 0	
9 11			98.08128% 98.01395%	98.08128% 98.01395%	98.08128% 98.01395%	98.08128% 98.01395%	98.08128% 98.01395%	98.08128% 98.01395%	
· 1 1:			(60,528) 0	(60,136) 0	(59,744) 0	(59,352) 0	(58,961) 0	(58,569) 0	
1:	3 Total Jurisdictional Recoverable Costs (Lines11+12)		(\$60,528)	(\$60,136)	(\$59,744)	(\$59,352)	(\$58,961)	(\$58,569)	
		=							

Notes:

66

(A) March 2010 forward, the Gross-up factor for taxes uses 0.61425, which reflects the Federal Income Tax Rete of 35%; the monthly Equity Component of 4.7019% reflects a 10% return on equity per FPSC Order No PSC-10-0153-FOF-EI.

(B) Line 8a times Line 9

(C) Line 8b times Line 10

(D) Line 5 is reported on Capital Schedule

(E) Line 7 is reported on O&M Schedule

In accordance with FPSC Order No. PSC-94-0393-FOF-EI, FPL has recorded the gains on sales of emissions allowances as a regulatory liability.

Totals may not add due to rounding.

Project	Function	Site / Unit	Account	Depreciation Rate / Amortization Period	Actual Balance December 2011	Estimated Balanc December 2012
02 - Low NOX Burner Technolo	NUN					
	02 - Steam Generation Plant	PtEvergiades U1	31200	2.30%	2,689,232.57	2,689,232.5
	02 - Steam Generation Plant	PtEverglades U2	31200	2.30%	2,368,972.27	2,368,972,2
	02 - Steam Generation Plant	Turkey Pt U1	31200	2.50%	2,563,376.41	2,563,376.4
	02 - Steam Generation Plant	Turkey Pt U2	31200	2.50%	2,275,221.65	2,275,221.0
2 - Low NOX Burner Technolo	ogy Total	-		-	9,896,802.90	9,896,802.9
3 - Continuous Emission Mon	-					
	02 - Steam Generation Plant	Cutler Comm	31100	1.70%	64,883.87	0.0
	02 - Steam Generation Plant	Cutler Comm	31200	2.20%	36,276.52	0.1
	02 - Steam Generation Plant	Cutler U5	31200	2.20%	310,454.41	0,1
	02 - Steam Generation Plant	Cutler U6	31200	2.20%	311,861.95	0.6
	02 - Steam Generation Plant	Manatee Comm	31200	2.60%	31,859.00	31,859,0
	02 - Steam Generation Plant	Manatee U1	31100	2.10%	56,430.25	56,430.2
	02 - Steam Generation Plant	Manatee U1	31200	2.60%	477,896.88	505,973.0
	02 - Steam Generation Plant	Manatee U2	31100	2.10%	56,332.75	56,332.
	02 - Steam Generation Plant	Manatee U2	31200	2.60%	508,552.43	508,552.4
	02 - Steam Generation Plant	Martin Comm	31200	2.60%	31,631.74	31,631.1
	02 - Steam Generation Plant	Martin U1	31100	2.10%	36,810.86	36,810
	02 - Steam Generation Plant	Martin U1	31200	2.60%	529,318.55	542,174.
	02 - Steam Generation Plant	Martin U2	31100	2.10%	36,845.37	36,845.
	02 - Steam Generation Plant 02 - Steam Generation Plant	Martin U2	31200	2.60%	525,201.70	529,517.
	02 - Steam Generation Plant	PtEverglades Comm	31100	1.90%	127,911.34	127,911.
		PtEverglades Comm	31200	2.30%	67,787.69	67,787.
	02 - Steam Generation Plant	PtEverglades U1	31200	2.30%	458,060.74	458,060.
	02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2	31200	2.30%	480,321.84	480,321.
		PtEvergiades U3	31200	2.30%	507,658.33	507,658.
	02 - Steam Generation Plant	PtEvergiades U4	31200	2.30%	517,303.41	517,303.
	02 - Steam Generation Plant	Sanford U3	31100	1.90%	54,282.08	0.
	02 - Steam Generation Plant 02 - Steam Generation Plant	Sanford U3	31200	2.40%	434,357.43	0.
	02 - Steam Generation Plant	Scherer U4	31200	2.60%	515,653.32	515,653.
	02 - Steam Generation Plant	SJRPP - Comm SJRPP U1	31100	2.10%	43,193.33	43,193.
	02 - Steam Generation Plant	SJRPP U2	31200 31200	2.60% 2.60%	779.50	779.
	02 - Steam Generation Plant	Turkey Pt Comm			779.51	779.
	02 - Steam Generation Plant	Turkey Pt Comm	31100 31200	2.10% 2.50%	59,056,19	59,056.
	02 - Steam Generation Plant	Turkey Pt U1	31200	2.50%	37,954.50 545,584.31	37,954.
	02 - Steam Generation Plant	Turkey Pt U2	31200	2.50%	504,688.53	545,584.
	05 - Other Generation Plant	FtLauderdale Comm	34100	3.50%	58,859,79	504,688.
	05 - Other Generation Plant	FtLauderdale Comm	34500	3.40%	34,502.21	58,859. 34,502.
	05 - Other Generation Plant	FtLauderdale U4	34300	4.30%	462,254.20	462,254.
	05 - Other Generation Plant	FtLauderdale U5	34300	4.20%	473,359.99	473,359.
	05 - Other Generation Plant	FtMyers U2	34300	4.20%	23,619.18	171,024.
	05 - Other Generation Plant	FtMyers U3	34300	5.20%	2,282.97	2,282.
	05 - Other Generation Plant	Martin U3	34300	4.20%	416,872.29	444,950.
	05 - Other Generation Plant	Martin U4	34300	4.20%	409,474.06	437,552.
```	05 - Other Generation Plant	Martin U8	34300	4.30%	13,693.21	13,693.
	05 - Other Generation Plant	Putnam Comm	34100	2.60%	82,857.82	82,857
	05 - Other Generation Plant	Putnam Comm	34300	4.20%	3,138.97	3,138.
	05 - Other Generation Plant	Putnam U1	34300	4.00%	346,616.08	346,616.
	05 - Other Generation Plant	Putnam U2	34300	3.30%	380,355.07	380,355.
	05 - Other Generation Plant	Sanford U4	34300	4.80%	98,339.95	147,960.
	05 - Other Generation Plant	Sanford U5	34300	4.20%	56,521.05	106,138.
3 - Continuous Emission Mon	itoring Total				10,232,475.17	9,368,407.
4 - Clean Closure Equivalency						
	02 - Steam Generation Plant	PtEverglades Comm	31100	1.90%	19,812.30	19,812.
	02 - Steam Generation Plant	Turkey Pt Comm	31100	2.10%	21,799.28	21,799.
4 - Clean Closure Equivalency	/ Demonstration Total				41,611.58	41,611.

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Project	Function	Site / Unit	Account	Depreciation Rate / Amortization Period	Actual Balance December 2011	Estimated Balance December 2012
5 - Maintenance of Above Gro	und Fuel Tanks					
	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	3,111,263.35	3,111,263.3
	02 - Steam Generation Plant	Manatee Comm	31200	2.60%	174,543.23	174,543.3
	02 - Steam Generation Plant	Manatee U1	31200	2.60%	104,845.35	104,845.3
	02 - Steam Generation Plant	Manatee U2	31200	2.60%	127,429.19	127,429.
	02 - Steam Generation Plant	Martin Comm	31100	2.10%	1,110,450.32	1,110,450.
	02 - Steam Generation Plant	Martin Comm	31200	2.60%	94,329.22	94,329.
	02 - Steam Generation Plant	Martin U1	31100	2.10%	176,338.83	176,338.
	02 - Steam Generation Plant	PtEverglades Comm	31100	1.90%	1,132,078.22	1,132,078.
	02 - Steam Generation Plant	Sanford U3	31100	1.90%	796,754.11	0.
	02 - Steam Generation Plant	SJRPP - Comm	31100	2.10%	42,091.24	42,091.
	02 - Steam Generation Plant	SJRPP - Comm	31200	2.60%	2,292.39	2,292.
	02 - Steam Generation Plant	Turkey Pt Comm	31100	2.10%	87,560.23	87,560.
	02 - Steam Generation Plant	Turkey Pt U2	31100	2.10%	42,158.96	42,158
	05 - Other Generation Plant	FtLauderdale Comm	34200	3.80%	898,110.65	898,110
	05 - Other Generation Plant	FtLauderdale GTs	34200	2.60%	584,290.23	584,290
	05 - Other Generation Plant	FtMyers GTs	34200	2.70%	133,478.89	133,478
	05 - Other Generation Plant	PtEverglades GTs	34200	2.60%	2,359,099.94	2,781,640
	05 - Other Generation Plant	Putnam Comm	34200	2.90%	749,025.94	749,025
- Maintenance of Above Gro	ound Fuel Tanks Total			-	11,726,140.29	11,351,926
- Relocate Turbine Lube Oli	Piping					
/ - Relocate Turbine Lube Oil	03 - Nuclear Generation Plant	StLucie U1	32300	2.40%	<u>31,030.00</u> 31,030.00	31,030 31,030
- Kelocate i tribille cube on					01,000.00	01,000
- Oll Spill Clean-up/Respon						
	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	47,081.78	46,881
	02 - Steam Generation Plant	Martin Comm	31600	2.40%	23,107.32	23,107
	02 - Steam Generation Plant	PtEverglades Comm	31100	1.90%	(38.54)	366,102
	02 - Steam Generation Plant	Amortizable	31650	5-Year	86,360,48	143,516
	02 - Steam Generation Plant	Amortizable	31670	7-Year	394,958.99	314,014
	05 - Other Generation Plant	FtLauderdale Comm	34100	3.50%	354,919.37	358,329
	05 - Other Generation Plant	Amortizable	34650	5-Year	22,458.48	22,458
	05 - Other Generation Plant	Amortizable	34670	7-Year	31,180,89	5,734
	08 - General Plant		39000	2.10%	4,412.76	4,412
8 - Oil Spill Clean-up/Respon	se Equipment Total				964,441.53	1,284,558
0 - Reroute Storm Water Run	off					
0 - Reroute Storm Water Run	03 - Nuclear Generation Plant	StLucie Comm	32100	1.80%	117,793.83 117,793.83	117,793 117,793
V - Refoute Stornt Water Run	on rotan				117,753.03	117,783
2 - Scherer Discharge Pipline	02 - Steam Generation Plant	Scherer Comm	31100	2.10%	524,872.97	524,872
	02 - Steam Generation Plant	Scherer Comm	31200	2.60%	328,761.62	328,761
	02 - Steam Generation Plant	Scherer Comm	31200	2.60%	689.11	526,761
2 - Scherer Discharge Pipline		Scheler Comm	31400	2.00%	854,323.70	854,323
· · · · · · · · · ·						
0 - Wastewater/Stormwater D	02 - Steam Generation Plant	Martin U1	31200	2.60%	380,994.77	380,994
	02 - Steam Generation Plant	Martin U2	31200	2.60%	416,671.92	416,671
	02 - Steam Generation Plant	PtEverglades Comm	31100	1.90%	437,403.66	437,403
0 - Wastewater/Stormwater D		FLVergiades Comm	51100	1.30 /	1,235,070.35	1,235,070
1 - St. Lucie Turtle Nets						
- of finds in the Mers	03 - Nuclear Generation Plant	StLucie Comm	32100	1.80%	352,942.34	352,942
1 - St. Lucie Turtle Nets Tota		,			352,942.34	352,942
2 - Pipeline Integrity						
pointe integrity	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	0.00	752,070
	02 - Steam Generation Plant	Martin Comm	31100	2.10%	0.00	2,261,238

Project	Function	Site / Unit	Account	Depreciation Rate / Amortization Period	Actual Balance December 2011	Estimated Balar December 201
3 - Spill Prevention Clean-Up						~
	02 - Steam Generation Plant	Cutler Comm	31400	2.20%	12,236.00	C
	02 - Steam Generation Plant	Cutter U5	31400	2.20%	18,388.00	C
	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	807,718.60	807,718
	02 - Steam Generation Plant	Manatee Comm	31200	2.60%	33,272.38	33,272
	02 - Steam Generation Plant	Manatee Comm	31500	2.40%	26,325.43	26,325
	02 - Steam Generation Plant	Manatee U1	31200	2.60%	45,749.52	45,749
	02 - Steam Generation Plant	Manatee U2	31200	2,60%	37,431.45	37,43
	02 - Steam Generation Plant	Martin Comm	31100	2.10%	343,785.10	343,78
	02 - Steam Generation Plant	Martin Comm	31500	2.40%	34,754.74	34,754
	02 - Steam Generation Plant	PtEverglades Comm	31100	1.90%	3,333,894.85	2,967,75
	02 - Steam Generation Plant	PtEverglades Comm	31200	2.30%	159,754.32	159,75
	02 - Steam Generation Plant	PtEverglades Comm	31500	2,00%	7,782.85	7,78
	02 - Steam Generation Plant	Sanford U3	31100	1.90%	850,530.75	
	02 - Steam Generation Plant	Sanford U3	31200	2.40%	211,727.22	
	02 - Steam Generation Plant	Turkey Pt Comm	31100	2.10%	92,013.09	92,01
	02 - Steam Generation Plant	Turkey Pt Comm	31500	2.20%	13,559.00	13,55
	03 - Nuclear Generation Plant	StLucie U1	32300	2.40%	1,019,614.24	1,019,61
	03 - Nuclear Generation Plant	StLucie U1	32400	1.80%	437,945.38	437,94
	03 - Nuclear Generation Plant	StLucie U2	32300	2.40%	552,389.64	552,38
	05 - Other Generation Plant	FtLauderdale Comm	34100	3.50%	189,219.17	189,21
	05 - Other Generation Plant	FtLauderdale Comm	34200	3.80%		
					1,480,169.46	1,480,16
	05 - Other Generation Plant	FtLauderdale Comm	34300	6.00%	28,250.00	28,25
	05 - Other Generation Plant	FtLauderdale GTs	34100	2.20%	92,726.74	92,72
	05 - Other Generation Plant	FtLauderdale GTs	34200	2.60%	513,250.07	513,25
	05 - Other Generation Plant	FtMyers GTs	34100	2.30%	98,714.92	178,93
	05 - Other Generation Plant	FtMyers GTs	34200	2.70%	629,983.29	629,98
	05 - Other Generation Plant	FtMyers GTs	34500	2.20%	12,430.00	12,43
	05 - Other Generation Plant	FtMyers U2	34300	4.20%	49,727.00	49,72
	05 - Other Generation Plant	FtMyers U3	34500	3.40%	12,430.00	12,43
	05 - Other Generation Plant	Martin Comm	34100	3.50%	61,215.95	61,21
	05 - Other Generation Plant	Martin U8	34200	3.80%	84,868.00	84,86
	05 - Other Generation Plant	PtEverglades GTs	34100	2.20%	454,080.68	454,08
	05 - Other Generation Plant	PtEverglades GTs	34200	2.60%	1,835,189.50	1,835,18
	05 - Other Generation Plant	PtEverglades GTs	34500	2.10%	7,782.85	7,78
	05 - Other Generation Plant	Putnam Comm	34100	2.60%	148,511.20	148,51
	05 - Other Generation Plant	Putnam Comm	34200	2.90%	1,730,934,74	1,730,93
	05 - Other Generation Plant	Putnam Comm	34500	2.50%	60,746.93	60,74
	05 - Other Generation Plant	Amortizable	34670	7-Year	7,065.10	00,74
	06 - Transmission Plant - Electric	Amonazabie	35200	1.90%	1,042,156.83	
	06 - Transmission Plant - Electric		35300	2.60%		1,058,50
	06 - Transmission Plant - Electric				177,981.88	177,98
	07 - Distribution Plant - Electric		35800	1.80%	65,655.25	65,65
			36100	1.90%	2,961,658.64	3,026,35
	07 - Distribution Plant - Electric		36670	2.00%	70,499.45	79,53
3 - Spill Prevention Clean-Up	08 - General Plant & Countermeasures Total		39000	2.10%	<u>146,691.32</u> 20,000,811.53	146,69 18,705,02
					20,000,011.55	10,700,02
4 - Manatee Reburn	02 - Steam Generation Plant	Manatee U1	31200	2.60%	16,687,067.37	16,687,06
	02 - Steam Generation Plant	Manatee U2	31200	2.60%	15,062,479.29	14,483,50
4 - Manatee Reburn Total				-	31,749,546.66	31,170,57
5 - PPE ESP Technology						
	02 - Steam Generation Plant	PtEverglades U1	31100	1.90%	298,709.93	298,70
	02 - Steam Generation Plant	PtEverglades U1	31200	2.30%	10,404,603.15	10,404,60
	02 - Steam Generation Plant	PtEverglades U1	31500	2.00%	2,500,248.85	2,500,24
	02 - Steam Generation Plant	PtEverglades U1	31600	2.10%	307,032.30	307,03
	02 - Steam Generation Plant	PtEvergiades U2	31100	1.90%	184,084.01	184,08
	02 - Steam Generation Plant	PtEverglades U2	31200	2.30%	11,979,735.29	11,979,73
		PtEverglades U2	31500	2.00%	3,954,581.63	3,954,58
	02 - Steam Generation Plant	-				
	02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2	31600	2.10%	324,086.94	324,08
	02 - Steam Generation Plant 02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2 PtEverglades U3	31600 31100	2.10% 1.90%	324,086.94 713,693.44	
	02 - Steam Generation Plant 02 - Steam Generation Plant 02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2 PtEverglades U3 PtEverglades U3				713,69
	02 - Steam Generation Plant 02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2 PtEverglades U3	31100	1.90%	713,693.44	324,08 713,69 18,160,53 4,304,05
	02 - Steam Generation Plant 02 - Steam Generation Plant 02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2 PtEverglades U3 PtEverglades U3	31100 31200	1.90% 2.30%	713,693.44 18,160,533.65	713,69 18,160,53 4,304,05
	02 - Steam Generation Plant 02 - Steam Generation Plant 02 - Steam Generation Plant 02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2 PtEverglades U3 PtEverglades U3 PtEverglades U3	31100 31200 31500 31600	1.90% 2.30% 2.00% 2.10%	713,693.44 18,160,533.65 4,304,056.69 528,541.18	713,69 18,160,53 4,304,05 528,54
	02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2 PtEverglades U3 PtEverglades U3 PtEverglades U3 PtEverglades U3 PtEverglades U4	31100 31200 31500 31600 31100	1.90% 2.30% 2.00% 2.10% 1.90%	713,693.44 18,160,533.65 4,304,056.69 528,541.18 313,275.79	713,69 18,160,53 4,304,05 528,54 313,27
	02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2 PtEverglades U3 PtEverglades U3 PtEverglades U3 PtEverglades U3 PtEverglades U4 PtEverglades U4	31100 31200 31500 31600 31100 31200	1.90% 2.30% 2.00% 2.10% 1.90% 2.30%	713,693.44 18,160,533.65 4,304,056.69 528,541.18 313,275.79 20,646,501.29	713,69 18,160,53 4,304,05 528,54 313,27 20,646,50
	02 - Steam Generation Plant 02 - Steam Generation Plant	PtEverglades U2 PtEverglades U3 PtEverglades U3 PtEverglades U3 PtEverglades U3 PtEverglades U4	31100 31200 31500 31600 31100	1.90% 2.30% 2.00% 2.10% 1.90%	713,693.44 18,160,533.65 4,304,056.69 528,541.18 313,275.79	713,69 18,160,53 4,304,05 528,54 313,27

Project	Function	Site / Unit	Account	Depreciation Rate / Amortization Period	Actual Balance December 2011	Estimated Balance December 2012
26 - UST Remove/Replace						
26 - UST Remove/Replace To	08 - General Plant tal		39000	2.10% _	<u>115,446.69</u> <b>115,446.69</b>	<u>115,446.6</u> 115,446.6
11 - Clean Air Interstate Rule	(CAIR)					
	02 - Steam Generation Plant	Manatee Comm	31100	2.10%	102,052.47	102,052.4
	02 - Steam Generation Plant	Manatee U1	31200	2.60%	20,059,060.47	20,059,060.4
	02 - Steam Generation Plant	Manatee U1	31400	2.60%	7,168,979.87	7,240,727.6
	02 - Steam Generation Plant	Manatee U2	31200	2.60%	17,191,439.24	20,461,497.5
	02 - Steam Generation Plant	Manatee U2	31400	2.60%	7,918,302.41	7,912,961.9
	02 - Steam Generation Plant	Martin Comm	31200	2.60%	518,274.99	518,274.9
	02 - Steam Generation Plant	Martin Comm	31400	2.60%	287,257.77	287,257.7
	02 - Steam Generation Plant	Martin U1	31200	2.60%	20,695,251.33	19,504,076.5 7,794,707.3
	02 - Steam Generation Plant	Martin U1	31400	2.60% 2.60%	7,794,707.32 19,057,799.99	20,248,974.7
	02 - Steam Generation Plant 02 - Steam Generation Plant	Martin U2 Martin U2	31200 31400	2.60%	7,385,556.36	7 477,119.8
,	02 - Steam Generation Plant	Scherer U4	31200	2.60%	0.00	348,261,192.3
	02 - Steam Generation Plant	SJRPP U1	31200	2.60%	27,708,298.93	27,708,298.9
	02 - Steam Generation Plant	SJRPP U1	31500	2.40%	455,145.91	455,145.
	02 - Steam Generation Plant	SJRPP U1	31600	2.40%	9,137.83	9,137.
	02 - Steam Generation Plant	SJRPP U2	31200	2,60%	26,630,303.07	26,524,626.
	02 - Steam Generation Plant	SJRPP U2	31500	2.40%	426,219.91	426,219.
	02 - Steam Generation Plant	SJRPP U2	31600	2.40%	9,591.24	9,591.
	05 - Other Generation Plant	FtLauderdale GTs	34300	2.90%	110,241.57	110,241.
	05 - Other Generation Plant	FtMyers GTs	34300	3.10%	57,855.19	57,855.
	05 - Other Generation Plant	Martin Comm	34100	3,50%	763,350,13	763,350.
	05 - Other Generation Plant	Martin Comm	34300	4.30%	244,343.38	244,343.
	05 - Other Generation Plant	Martin Comm	34500	3.40%	292,498.67	292,498.
	05 - Other Generation Plant	PtEverglades GTs	34300	3.40%	107,874.44	107,874.
31 - Clean Air Interstate Rule	07 - Distribution Plant - Electric (CAIR) Total		36500	3.90%	<u>411,775.23</u> <b>165,405,317.72</b>	411,775. 516,988,862.
33 - Clean Air Mercury Rule (	02 - Steam Generation Plant	Scherer U4	31100	2,10%	67,478.60	81,956.1
	02 - Steam Generation Plant	Scherer U4	31200	2.60%	106,777,872.99	106,998,574.
	02 - Steam Generation Plant	Scherer U4	31500	2.40%	33,739.30	40,978.
33 - Clean Air Mercury Rule (			01000	2.4070	106,879,090.89	107,121,508.
35 - Martin Drinking Water S	vstem					
-	02 - Steam Generation Plant	Martin Comm	31100	2.10%	235,391.32	235,391.
35 - Martin Drinking Water S	ystem Total				235,391.32	235,391.1
36 - Low Level Waste Storag			20100	1,80%	6 440 602 26	6,454,032.
36 - Low Level Waste Storag	03 - Nuclear Generation Plant Je (LLW) Total	StLucie Comm	32100	1.0070	6,449,693.36 6,449,693.36	6,454,032
37 - DeSoto Solar Energy Ce	ntor					
Si - Desolo Solai Ellergy Ca	05 - Other Generation Plant	Desoto Solar	34000	0.00%	255,507.00	255,507
	05 - Other Generation Plant	Desoto Solar	34100	3,30%	4,521,406.52	4,502,770.
	05 - Other Generation Plant	Desoto Solar	34300	3.30%	115,754,063.29	115,303,899
	05 - Other Generation Plant	Desoto Solar	34500	3.30%	26,239,255.03	26,137,101
	05 - Other Generation Plant	Desoto Solar	34500	3.30%	0.00	57,667
	05 - Other Generation Plant	Amortizable	34630	3-Year	12,102.91	0
	05 - Other Generation Plant	Amortizable	34650	5-Year	21,934.62	21,934
	05 - Other Generation Plant	Amortizable	34670	7-Year	59,592.09	59,592
	06 - Transmission Plant - Electric		35200	1.90%	6,543.06	5,655
	06 - Transmission Plant - Electric		35300	2.60%	704,626.32	520,413
	06 - Transmission Plant - Electric		35310	2.90%	1,712,305.00	1,712,305
	06 - Transmission Plant - Electric		35500	3.40%	394,417.57	394,417
	06 - Transmission Plant - Electric		35600 36100	3.20% 1.90%	191,357.87 608,244.37	191,357 608,254
	07 - Distribution Plant - Electric 07 - Distribution Plant - Electric		36200	2.60%	2,214,956.51	2,215,122
	07 - Distribution Plant - Electric 08 - General Plant		39220	9.40%	2,214,936.31 28,426.16	
	VU - Ochoran Flatt		JUZZU			
	08 - General Plant	Amortizable	39720	7-Year	22,114.04	22,114

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Project	Function	Site / Unit	Account	Depreciation Rate / Amortization Pariod	Actual Balance December 2013	Estimated Balance December 2012
38 - Spacecoast Solar Energy C	enter					
	01 - Intangible Plant	Amortizable	30300	30-Year	6,359,027.00	6,359,027.00
	05 - Other Generation Plant	Space Coast Solar	34100	3.30%	3,838,725.58	3,838,725.58
	05 - Other Generation Plant	Space Coast Solar	34300	3.30%	51,606,083.22	51,606,083.22
	05 - Other Generation Plant	Space Coast Solar	34500	3.30%	6,126,698.76	6,126,698.76
	05 - Other Generation Plant	Amortizable	34630	3-Year	7,271.71	7,271.71
	05 - Other Generation Plant	Amortizable	34650	5-Year	9,438.49	9,438.49
	05 - Other Generation Plant 06 - Transmission Plant - Electric	Amortizable	34670 35300	7-Year 2.60%	51,560.44	51,560.44
	07 - Distribution Plant - Electric		36100	2.80%	139,390.84 269,805.86	139,390.8 269,799.4
	07 - Distribution Plant - Electric		36200	2.60%	2,187,146.99	2,186,995.62
	08 - General Plant		39220	9.40%	31,858,14	31,858,1
	08 - General Plant	Amortizable	39720	7-Year	6,350.66	6,350.6
8 - Spacecoast Solar Energy C		741101020010	00/20		70,633,357.69	70,633,199.8
19 - Martin Solar Energy Center						
- merchi ooner Energy Obiliter	05 - Other Generation Plant	Martin Solar	34000	D.DO%	216,844.31	216,844.31
	05 - Other Generation Plant	Martin Solar	34100	3.30%	184,125.52	19,859,164.3
	05 - Other Generation Plant	Martin Solar	34300	3.30%	397,293,384.66	385,420,309.5
	05 - Other Generation Plant	Martin Solar	34500	3.30%	21,636.52	4,059,060.7
	05 - Other Generation Plant	Martin Solar	34600	3.30%	1,299.31	1,299.3
	05 - Other Generation Plant	Martin U8	34300	4.30%	379,929.68	423,125.6
	05 - Other Generation Plant	Amortizable	34650	5-Year	21,384.00	21,384.0
	05 - Other Generation Plant	Amortizable	34670	7-Year	0.00	4,910.3
	06 - Transmission Plant - Electric		35500	3.40%	603,691.67	603,691.6
	06 - Transmission Plant - Electric		35600	3.20%	364,159.38	364,159.3
	07 - Distribution Plant - Electric		36400	4.10%	9,282.42	9,282.4
	07 - Distribution Plant - Electric		36660	1.50%	94,476.14	94,476.1
	07 - Distribution Plant - Electric		36760	2.60%	2,728.36	2,728.3
	08 - General Plant		39220	9.40%	25,193.18	25,193.1
	08 - General Plant		39240	11.10%	205,307.14	405,859.1
	08 - General Plant		39290	3.50%	97,633.07	97,633.0
	08 - General Plant	Amortizable	39420	7-Year	18,992.89	18,992.8
39 - Martin Solar Energy Center	08 - General Plant r Total	Amortizable	39720	7-Year	3,203.99 399,543,272.24	3,203.9 411,631,318.5
					000,010,2121	
41 - Manatee Hesters	02 - Steam Generation Plant	CapeCanaveral Comm	31400	0.70%	4,043,057.47	4,042,458.9
	02 - Steam Generation Plant	PtEverglades Comm	31400	2.30%	4,040,007.47 D.00	3,481,413.8
	02 - Steam Generation Plant	Riviera Comm	31400	0.60%	2,605,268.34	2,605,268.3
	06 - Transmission Plant - Electric		35300	2.60%	276,404.06	276,404.0
	07 - Distribution Plant - Electric		36100	1.90%	29,779.49	29,981.1
	07 - Distribution Plant - Electric		36200	2.60%	488,424.42	488,123.5
	07 - Distribution Plant - Electric		36400	4.10%	223,459.91	226,154.5
	07 - Distribution Plant - Electric		36500	3.90%	302,616.24	307,184.1
	07 - Distribution Plant - Electric		36660	1.50%	221,325.50	221,325.5
	07 - Distribution Plant - Electric		36760	2.60%	168,995.42	168,995.4
	07 - Distribution Plant - Electric		36910	3.90%	607.06	607.0
41 - Manatee Heaters Total	08 - General Plant	Amortizable	39720	7-Year	23,287.46	23,187.3
41 - Manalog Mealers I Ulai					8,383,225.37	11,871,103.9
42 - Turkey Point Cooling Cana		Tuden Dt Carra		4 000		0 500 750 0
42 - Turkey Point Cooling Cana	03 - Nuclear Generation Plant Il Monitoring Total	Turkey Pt Comm	32100	1.80%	3,582,752.89 3,582,752.89	3,582,752.8 3,582,752.8
44 - Martin Plant Barley Barber	Swamp Iron Mitigation Project					
44 Marilla Diarré Daulaus D-stra-	02 - Steam Generation Plant	Martin Comm	31100	2.10%	164,704.22	164,718.5
-	Swamp Iron Mitigation Project Te	Juan			164,704.22	164,718.5
45 - 800MW Unit ESP Project		Manalan 110	24000	2 6014	0.00	61 517 620 2
	02 - Steam Generation Plant					
45 - 800MW Unit ESP Project To	02 - Steam Generation Plant otal	Manatee U2	31200	2.60%	0.00	<u>61,517,629.2</u> <b>61,617,629.2</b>

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FLORIDA POWER & LIGHT CON					
ENVIRONMENTAL COST RECO	VERY CLAUSE				
	CAPITAL	STRUCTURE AND CO	ST RATES PER 2009 F	RATE CASE (a)	
Equity @ 10.00%		ocket No 080677-EI Or		• •	
	1		T		PRE-TAX
· · · ·			MIDDODIT	NECHTED	
······································	ADJUSTED	D 4 TO	MIDPOINT	WEIGHTED	WEIGHTED
	RETAIL	RATIO	COST RATES	COST	COST
LONG TERM DEBT	6 2019 0 60 664	21 5(50)	5 4 9%	1.000/	1 000
	5,298,960,654	51.50576	5.4576	1.73%	1.73
SHORT TERM DEBT	156,113,805	0.930%	2.11%	0.02%	0.029
PREFERRED STOCK	0	0.000%	0.00%	0,00%	0.00
CUSTOMER DEPOSITS	544,711,775	. 3.245%	5.98%	0.19%	0.19
COMMON EQUITY	7,889,967,199	46.999%	10.00%	4.70%	7.65
DEFERRED INCOME TAX	2,892,247,084	17.229%	0.00%	0.00%	0.00
INVESTMENT TAX CREDITS					
ZERO COST	0	0.000%	0.00%	0.00%	0.00
WEIGHTED COST	5,429,401	0.032%	8.19%	0.00%	
			. 0		
TOTAL	\$16,787,429,918	100.00%		6.65%	9.60%
	CALCULATION OF THE WEI	GHTED COST FOR CO	ONVERTIBLE INVES	IMENT TAX CRI	EDITS (C-ITC) (
	ADJUSTED		COST	WEIGHTED	PRE TAX
	RETAIL	RATIO	RATE	COST	COST
	· · · · · · · · · · · · · · · · · · ·				
LONG TERM DEBT	\$5,298,960,654	40.18%	5.49%	2.21%	2.219
PREFERRED STOCK	0	0.00%	0.00%	0.00%	0.00
COMMON EQUITY	7,889,967,199	59.82%	10.00%	5.98%	9,749
	.,		10.0070	5.5070	
TOTAL	\$13,188,927,853	100.00%		8.19%	11.94
RATIO	<i><i><i>w</i><sub>1</sub><i>j</i>,<i>ibujjzi</i>,<i>jjjj</i></i></i>	100.0076		0.1970	11.24
DEDT COLONELTS					
DEBT COMPONENTS:	1 =00004				
LONG TERM DEBT	1.7329%				
SHORT TERM DEBT	0.0196%				
CUSTOMER DEPOSITS	0,1940%				
TAX CREDITS -WEIGHTED	0.0007%		· · · · · ·		
TOTAL DEBT	201201-001094739/6				
EQUITY COMPONENTS:					
PREFERRED STOCK	0.0000%				
COMMON EQUITY	4.6999%				
TAX CREDITS -WEIGHTED	0.0019%				
TOTAL EQUITY	4.70191%				
TOTAL	6 6492%				
PRE-TAX EQUITY	1 546%				
PRE-TAX TOTAL	<b>1</b> 20 50 50 50 50 50 50 50 50 50 50 50 50 50				
				· · · · · · · · ·	
Note:					
(a) Reflects approved capital struc		t 080677-EI which end	led in Order No. PSC-	10-0153-FOF-EI.	The above
capital structure started effective N					
(b) This capital structure applies of	only to Convertible Investment Ta	x Credit (C-ITC).		• • • • • • • • • • • • • • • • • • • •	
				• • • • • • • • • • • • • • • • • • • •	
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Docket No. 120007-EI Cape Canaveral Plant IVW Permit RRL-5, Page 1 of 21



Florida Department of Environmental

Protection Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399 Rick Scott Governor

Jennifer Carroll Lt. Governor

> Herschel T. Vinyard, Jr. Secretary

NOTICE OF PERMIT

CERTIFIED MAIL

In the Matter of an Application for Permit by: Florida Power & Light Company (FP&L) Cape Canaveral Energy Center (CCEC) 6000 N US Highway 1 Cocoa, FL 32927-6081

Attention: David Williams, Plant Manager

DEP File # FL0001473-IW1S/NR Brevard County

FEB 2 2 2011

Enclosed is Permit Number FL0001473 to Florida Power & Light Company (FP&L), Post Office Box 14000, Juno Beach, Florida 33408 to operate wastewater treatment and effluent disposal facilities for the Cape Canaveral Energy Center (CCEC) Unit 3 Plant located in Brevard County, Florida, issued under Section 403.0885, Florida Statutes and DEP Rule 62-620, Florida Administrative Code.

Any party to this order (permit) has the right to seek judicial review of the permit under Section 120.68, Florida Statutes, by the filing of a Notice of Appeal under Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division Director Division of Water Facilities 2600 Blair Stone Road Tallahassee, Florida 32399-2400 (850) 245-8335

#### Florida Power & Light Company (FP&L) Facility ID Number FL0001473

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on  $\frac{\partial 2 - 11 - 2011}{\partial 2 - 11 - 2011}$  to the listed persons.

#### [Clerk Stamp]

#### FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52 (9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Shieldo 02-11-2011 Clerk) (Date)

Copies furnished to:

Copies furnished by certified mail to: Mark Nuhfer, NPDES Permitting Section, EPA Region 4, Atlanta, GA Chairman, Board of Brevard County Commissioners

Copies furnished by First Class mail to: Andy Flajole, FP&L U.S. Fish & Wildlife Services Ron Mezich, Florida Fish and Wildlife Conservation Commission (FWC)

Copies furnished by intradepartmental mail to: Chris Ferraro, DEP Orlando Gary Miller, DEP Orlando

Docket No. 120007-EI Cape Canaveral Plant IWW Permit RRL-5, Page 3 of 21



### Florida Department of Environmental

#### Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Rick Scott Governor

Jennifer Carroll Lt. Governor

> Herschel T. Vinyard, Jr. Secretary

#### STATE OF FLORIDA INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE: Florida Power & Light Company (FP&L) PERMIT NUMBER:FL0001473-012 (Major)FILE NUMBER:FL0001473-012-IW1SISSUANCE DATE:February 11, 2011EXPIRATION DATE:February 10, 2016

RESPONSIBLE OFFICIAL: David Williams Plant Manager 700 Universe Blvd Juno Beach, Florida 33408

#### FACILITY:

Cape Canaveral Energy Center (CCEC). 6000 N US Highway 1 Cocoa, FL 32927-6081 Brevard County Latitude: 28°28' 6.1" N Longitude: 80°45' 54.72" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and applicable rules of the Florida Administrative Code (F.A.C.) and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. The above named permittee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

#### FACILITY DESCRIPTION:

The converted plant is named the Cape Canaveral Energy Center (CCEC). The CCEC consists of a nominal 1,250 MW natural gas-fueled combined cycle unit (Unit 3). CCEC Unit 3 consist of three nominal 250 MW combustion turbine-electrical generators, three supplementary-fired heat recovery steam generators (HRSG) with selective catalytic reduction (SCR), and one common nominal 500 MW steam-electrical generator. CCEC Unit 3 will use ultralow sulfur distillate fuel oil as backup fuel.

#### WASTEWATER TREATMENT:

Once-through condenser cooling water and auxiliary equipment cooling water are chlorinated followed by dechlorination prior to discharge. Metal cleaning wastewater and reverse osmosis membrane cleaning wastewater will be disposed of offsite. Regeneration of mixed bed ion exchange units will be performed offsite. Plant/Equipment drains that receive washdown water from cleaning and maintenance activities are routed through an oil/water separator prior to an internal discharge to the Once-Through Cooling Water (OTCW) conduits and hence to Outfalls D-011 and D-012. When possible, Heat Recovery Steam Generator (HRSG) blowdown will be reused as make-up water to the on-site water treatment system. Alternatively, HRSG blowdown will be discharged via internal discharge to the once-through cooling water conduits and hence to Outfalls D-011 and D-012. Water treatment plant wastewater (RO reject and multimedia filter backwash) will be discharged from internal Outfall I-017 to the OTCW conduits and hence to Outfalls D-011 and D-012.

Equipment area stormwater from the power block and transformer containment areas is routed through an oil/water separator and then to a series of connected on-site retention ponds prior to discharge. The on-site retention ponds also receive some non-equipment stormwater. The stormwater management system is designed to discharge via Outfalls D-028 and D-029.

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Outfail D-028 is a shared discharge structure that regularly releases stormwater from the on-site retention ponds as well as infrequent releases of stormwater from the fuel oil storage containment area.

#### **REUSE OR DISPOSAL:**

Surface Water Discharge:

A combined plant discharge of 617 MGD annual average flow and 822 MGD maximum daily flow to the Indian River (Class II Marine waters, WBID 2963D) through two outfall structures, D-011, located approximately at latitude 28° 28' 11" N, longitude 80° 45' 46" W, and D-012, located approximately at latitude 28° 28' 14" N, longitude 80° 45' 50" W.

A stormwater discharge from the on-site retention pond system and the fuel oil storage tank secondary containment area to the Indian River (Class II Marine waters, WBID 2963D), D-028, located approximately at latitude 28° 28' 18" N, longitude 80° 45' 51" W.

A stormwater discharge from the on-site retention pond system to the Indian River (Class II Marine waters, WBID 2963D), D-029, located approximately at latitude 28° 28' 9" N, longitude 80° 45' 46" W.

A discharge of non-equipment area stormwater to the plant's intake canal (Class II Marine waters, WBID 2963D), D-024, D-025, D-026, and D-027.

Land Application:

There is no land application of wastewater at the CCEC.

INTERNAL OUTFALLS:

A discharge of plant/equipment drain wastewater from internal Outfall I-018 to the OTCW conduits and hence to Outfalls D-011 and D-012.

A discharge of water treatment plant wastewater (RO reject and multimedia filter backwash) from internal Outfall I-017 to the OTCW conduits and hence to Outfalls D-011 and D-012.

A discharge of Heat Recovery Steam Generator (HRSG) blowdown from internal Outfall I-019 to the OTCW conduits and hence to Outfalls D-011 and D-012.

A auxiliary equipment cooling water discharge of 23 MGD annual average flow and 30.0 MGD maximum daily flow from internal Outfall 1-015 to the OTCW conduits and hence to Outfalls D-011 and D-012.

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions set forth in this Cover Sheet and Part I through Part IX on pages 1 through 26 of this permit.

PERMIT NUMBER: ISSUANCE DATE: EXPIRATION DATE: FL0001473-012 (Major) February 11, 2011 February 10, 2016

#### I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- A. Surface Water Discharges
  - 1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge the combined plant discharge (consisting of once-through and auxiliary equipment cooling water, plant/equipment drain wastewater, water treatment plant wastewater, and heat recovery steam generator blowdown) from Outfalls D-011 and D-012 to Indian River Lagoon. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3:

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			Efflu	ent Limitations	Moni	toring Requireme	nts	
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Instant.Maximum Monthly Average	Continuous	Calculated	FLW-1	
Chlorination Duration	min/day	Max	120	Instant. Maximum	Daily; 24 hours	Calculated	OTH-1	
Oxidants, Total Residual	mg/L	Max	0.01	Maximum Daily Average	Weekly	Grab	EFF-1 EFF-2	See I.A.3
Temp. Difference between Intake and Discharge	Deg F	Max Max Max Max	Report 14.2 Report Report	Daily Average Monthly Average Daily Average Monthly Average	6 times per day	Meter	EFF-1 EFF-2	May – Sept May – Sept Oct – Apr Oct - Apr
Temperature (F), Water	Deg F	Max Max	Report Report	Daily Average Monthly Average	6 times per day	Meter	EFF-1 EFF-2	
Oxygen, Dissolved (DO)	mg/L	Min	4.0	Single Sample	Monthly	Meter	EFF-1 or EFF-2	See I.A.5
Oxygen, Dissolved (DO)	mg/L	Max	Report	Single Sample	Monthiy	Meter	INT-I	See LA.5
Chronic Whole Effluent Toxicity, 7-Day IC25 (Mysidopsis bahia)	percent	Min	100	Single Sample	Quarterly	24-hr Composite	ÉFF-1 EFF-2	See I.A.4 and I.A.6
Chronic Whole Effluent Toxicity, 7-Day IC25 (Menidia beryllina)	percent	Min	100	Single Sample	Quarteriy	24-hr Composite	EFF-1 EFF-2	See 1.A.4 and 1.A.6

2. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-1	Flow monitoring location for the combined discharge from Outfall D-011 and D-012.
OTH-I	At the point of chlorine addition for Unit 3 OTCW
EFF-I	End of pipe once-through cooling water discharge from Outfall D-011
EFF-2	End of pipe once-through cooling water discharge from Outfall D-012
INT-1	Once-through cooling water intake for Unit 3

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- 3. Grab samples shall consist of multiple samples collected at approximately the beginning, middle, and end a chlorination period. The total daily chlorination duration of 120 minutes per day may consist of multiple chlorination periods of less than 120 minutes.
- 4. Toxicity sampling shall consist of individual composite samples from each outfall combined in equal proportions to create a single sample for analysis.
- 5. Insitu dissolved oxygen monitoring for both the intake and discharge shall be performed concurrently every 4 hours, for 24 hours, once month. Monitoring during a monthly event is only required from one outfall (D-011 or D-012) but shall be alternated (between the two outfalls) every other month.
- 6. The permittee shall comply with the following requirements to evaluate chronic whole effluent toxicity of the discharge from outfall D-011 and D-012.
  - a. **Effluent Limitation** 
    - In any routine or additional follow-up test for chronic whole effluent toxicity, the 25 percent inhibition concentration (IC25) shall not be less than 100% effluent. [Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.]
    - (2) For acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent in any test. [Rules 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]
  - b. Monitoring Frequency
    - (1) Routine toxicity tests shall be conducted once every three months, the first starting within 60 days of the issuance date of this permit and lasting for the duration of this permit.
    - (2) Upon completion of four consecutive, valid routine tests that demonstrate compliance with the effluent limitation in 6.a.(1) above, the permittee may submit a written request to the Department for a reduction in monitoring frequency to once every six months. The request shall include a summary of the data and the complete bioassay laboratory reports for each test used to demonstrate compliance. The Department shall act on the request within 45 days of receipt. Reductions in monitoring shall only become effective upon the Department's written confirmation that the facility has completed four consecutive valid routine tests that demonstrate compliance with the effluent limitation in 6.a.(1) above.
    - (3) If a test within the sequence of the four is deemed invalid based on the acceptance criteria in EPA-821-R-02-014, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive valid tests for the purpose of evaluating the reduction of monitoring frequency.
  - c. Sampling Requirements
    - (1) For each routine test or additional follow-up test conducted, a total of three 24-hour composite samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-014, Section 8.
    - (2) The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.
    - (3) Samples for routine and additional follow-up tests shall not be collected on the same day.
  - d. Test Requirements
    - (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: 100%, 50%, 25%, 12.5%, and 6.25% final effluent.
    - (2) The permittee shall conduct 7-day survival and growth chronic toxicity tests with a mysid shrimp, Americamysis (Mysidopsis) bahia, Method 1007.0, and an inland silverside, Menidia beryllina, Method 1006.0, concurrently.
    - (3) All test species, procedures and quality assurance criteria used shall be in accordance with <u>Short-term</u> <u>Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and</u> <u>Estuarine Organisms</u>, 3rd Edition, EPA-821-R-02-014. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In

#### PERMITTEE: FACILITY:

Florida Power & Light Company Cape Canaveral Energy Center PERMIT NUMBER: ISSUANCE DATE: EXPIRATION DATE: FL0001473-012 (Major) February 11, 2011 February 10, 2016

the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.

- (4) The control water and dilution water used shall be artificial sea salts as described in EPA-821-R-02-014, Section 7.2. The test salinity shall be determined as follows:
  - (a) For the Americamysis bahia bioassays, the effluent shall be adjusted to a salinity of 20 parts per thousand (ppt) with artificial sea salts. The salinity of the control/dilution water (0% effluent) shall be 20 ppt. If the salinity of the effluent is greater than 20 ppt, no salinity adjustment shall be made to the effluent and the test shall be run at the effluent salinity. The salinity of the control/dilution water shall match the salinity of the effluent.
  - (b) For the Menidia beryllina bioassays, if the effluent salinity is less than 5ppt, the salinity shall be adjusted to 5 ppt with artificial sea salts. The salinity of the control/dilution water (0% effluent) shall be 5 ppt. If the salinity of the effluent is greater than 5 ppt, no salinity adjustment shall be made to the effluent and the test shall be run at the effluent salinity. The salinity of the control/dilution water shall match the salinity of the effluent.
  - (c) If the salinity of the effluent requires adjustment, a salinity adjustment control should be prepared and included with each bioassay. The salinity adjustment control is intended to identify toxicity resulting from adjusting the effluent salinity with artificial sea salts. To prepare the salinity adjustment control, dilute the control/dilution water to the salinity of the effluent and adjust the salinity of the salinity adjustment control at the same time and to the same salinity that the salinity of the effluent is adjusted using the same artificial sea salts.
- Quality Assurance Requirements
  - (1) A standard reference toxicant (SRT) quality assurance (QA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly chronic toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.
  - (2) If the mortality in the control (0% effluent) exceeds 20% for either species in any test or any test does not meet "test acceptability criteria", the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-014, Section 14,12 (Americamysis bahia) and Section 13.12 (Menidia beryllina). The repeat test shall begin within 21 days after the last day of the invalid test.
  - (3) If 100% mortality occurs in all effluent concentrations for either species prior to the end of any test and the control mortality is less than 20% at that time, the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non-compliance.
  - (4) Routine and additional follow-up tests shall be evaluated for acceptability based on the observed doseresponse relationship as required by EPA-821-R-02-014, Section 10.2.6., and the evaluation shall be included with the bioassay laboratory reports.
- f. Reporting Requirements
  - Results from all required tests shall be reported on the Discharge Monitoring Report (DMR) as follows:

     (a) Routine and Additional Follow-up Test Results: The calculated IC25 for each test species shall be entered on the DMR.
  - (2) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-014, Section 10, Report Preparation and Test Review, and mailed to the Department at the address below within 30 days after the last day of the test.
  - (3) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to BPA-821-R-02-014, Section 10, and mailed within 30 days after the last day of the second valid additional follow-up test.
  - (4) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.
  - (5) The same bioassay data shall not be reported as the results of more than one test.
  - (6) All bioassay laboratory reports shall be sent to:

PERMITTEE: Florida Po FACILITY: Cape Cana

Florida Power & Light Company Cape Canaveral Energy Center PERMIT NUMBER: ISSUANCE DATE: EXPIRATION DATE: FL'0001473-012 (Major) February 11, 2011 February 10, 2016

Florida Department of Environmental Protection Tallahassee Office 2600 Blair Stone Road, M.S. 3545 Tallahassee, Florida 32399-2400

- g. Test Failures
  - (1) A test fails when the test results do not meet the limits in 6.a.(1).
  - (2) Additional Follow-up Tests:
    - (a) If a routine test does not meet the chronic toxicity limitation in 6.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 6.d.
    - (b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.
    - (c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, and 6.25% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be analyzed according to the procedures in EPA-821-R-02-014.

(3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.

- (a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.
- (b) The Department shall review and approve the plan before initiation.
- (c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
- (d) Progress reports shall be submitted quarterly to the Department at the address above.
- (e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 6.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 6.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-014, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.
- (f) Upon completion of four consecutive quarterly valid routine tests that demonstrate compliance with the effluent limitation in 6.a.(1) above, the permittee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive quarterly valid routine whole effluent toxicity tests. If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive quarterly valid routine tests for the purpose of terminating the plan.
- (4) If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 6.(a)(2), the Department may revise this permit to require acute definitive whole effluent toxicity testing.
- (5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity failures.

[62-4.241, 62-620.620(3)]

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- 7. The discharge shall not contain components that settle to form putrescent deposits or float as debris, scum, oil, or other matter. [62-302.500(1)(a)]
- 8. Discharges from Outfalls D-011 and D-012 are subject to thermal limitations established by Rule 62-302.520(1), F.A.C.
- 9. OTCW and AECW limitations and monitoring requirements for TRO are not applicable for any week in which chlorine is not added to Unit 3.

#### **B.** Internal Outfalls

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Water Treatment Plant Wastewater from I-017 to the OTCW conduits and hence to Outfalls D-011 and D-012. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

						· · · ·		
	-		Efflue	ent Limitations	· Mon	itoring Requiremen		
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Average Monthly Average	2/month	Calculated	OUI-1	
Solids, Total Suspended	mg/L	Max Max	30.0 100.0	Monthly Average Daily Average	2/month	Composite	OUI-1	See I.B.3
Oil and Grease	mg/L	Max Max	15.0 20.0	Monthly Average Daily Average	2/month	Grab	OUI-I	
рН	s.u.	Min Max	6.0 9.0	Instant. Minimum Instant.Maximum	2/month	Grab	OUI-1	
Nitrogen, Total	mg/l	-	Report	Single Sample	Monthly	8-hr Composite	OUI-1	
Nitrogen, Total, Monthiy Loading	lbs/month	-	Report	Total Monthly	Monthly	Calculated	OUI-1	
Nitrogen, Total, Annual Loading	lbs/year	Max	2555	Total Annual (Calendar year)	Annual (Calendar year)	Calculated	OUI-1	See I.B.4
Phosphorous, Total	mg/l	-	Report	Single Sample	Monthly	8-hr Composite	OUI-1	
Phosphorous, Total, Monthly Loading	lbs/month	-	Report	Total Monthly	Monthly	Calculated	OU1-1	
Phosphorous, Total, Annual Loading	lbs/year	Max	146	Total Annual (Calendar year)	Annual (Calendar year)	Calculated	ОЛ-1	See I.B.5

2. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
OUI-1	At the point of discharge to the OTCW conduits and prior to mixing with any other wastewater stream.

3. The composite sample shall be consists of grab samples taken at the beginning, middle and end of the Backwash Basin discharge period.

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- 4. The calendar year total nitrogen loading shall be the summation of each of the twelve monthly nitrogen loadings during the calendar year.
- 5. The calendar year total phosphorous loading shall be the summation of each of the twelve monthly phosphorous loadings during the calendar year
- 6. During the period beginning on the issuance date and lasting through the expiration date of this pennit, the permittee is authorized to discharge Plant/Equipment Drain Wastewater from I-018 to OTCW conduits and hence to Outfalls D-011 and D-012. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

					-			
			Effh	ent Limitations		Monitoring Requiren	nents	•
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Average Monthly Average	Monthly	Calculated	OUI-2	
Oil and Grease	mg/L	Max Max	15.0 20.0	Monthly Average Daily Average	Monthly	Grab	OUI-2	-
Solids, Total Suspended	mg/L	Max Max	30.0 100.0	Monthly Average Daily Average	Monthly	Grab	OUI-2	
рН	s.u.	Min Max	6.0 9.0	Instant. Minimum Instant. Maximum	Monthly	Grab	OUI-2	]

7. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.6 and as described below:

Monitoring Site	
Number	Description of Monitoring Site
OUI-2	At the point of discharge to the OTCW conduits

8. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Heat Recovery Steam Generator (HRSG) Blowdown from I-019 to the OTCW conduits and hence to Outfalls D-011 and D-012. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

			Efflue	ent Limitations	Moni	oring Requiremen	ts	
Parameter	Units	Max/Mi n	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Average Monthly Average	Monthly	Calculated	OUI-3	
Oil and Grease	mg/L	Max Max	15.0 20.0	Monthly Average Daily Average	Monthly	Grab	OUI-3	
Solids, Total Suspended	mg/L	Max Max	30.0 100.0	Monthly Average Daily Average	Monthly	Grab	OUI-3	

9. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.8. and as described below:

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Monitoring Site	
Number	Description of Monitoring Site
OUI-3	At the point of discharge to the OTCW conduits

10. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Auxiliary Equipment Cooling Water from Outfall I-015 to the OTCW conduits and hence to Outfalls D-011 and D-012. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

			Efflue	ent-Limitations	· Mon	itoring Requireme	cnis	
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Average Monthly Average	Continuous	Calculated	FLW-2	
Chlorination Duration	min/day	Max	1440	Instant. Maximum	Daily; 24 hours	Calculated	OTH-2	

11. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.7. and as described below:

Monitoring Site	
Number	Description of Monitoring Site
FLW-2	Flow monitoring location for auxiliary equipment cooling water for Unit 3
OTH-2	At the point of chlorine addition for Unit 3 AECW

- 12. During the period beginning at initiation of discharge and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall D-028, stormwater from the fuel oil storage tank secondary containment area, provided such discharges are limited and monitored by the permittee as specified below:
  - a. The facility shall have a valid Spill Prevention Control and Countermeasure (SPCC) Plan pursuant to 40 CFR Part 112.
  - b. The facility shall endeavor to retain the stormwater in the containment area to the maximum extent practicable before discharging from Outfall D-028. The discharge from Outfall D-028 shall only occur due to tank and equipment integrity and safety concerns.
  - c. In draining the diked area, a portable oil skimmer or similar device or absorbent material shall be used to remove oil and grease (as indicated by the presence of a sheen) immediately prior to draining.
  - d. Monitoring records shall be maintained in the form of a log and shall contain the following information, as a minimum:
  - Date and time of discharge;
  - Estimated volume of discharge;
  - Initials of person making visual inspection and authorizing discharge; and
  - Observed conditions of storm water discharged.

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- e. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of a visible oil sheen at any time.
- C. Other Limitations and Monitoring and Reporting Requirements
  - 1. The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (April 26, 2006)" is available at http://www.dep.state.fl.us/labs/library/index.htm. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:
    - a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;
    - b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and
    - c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

When the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the abovereferenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. [62-4.246, 62-160]

- 2. The permittee shall provide safe access points for obtaining representative influent and effluent samples which are required by this permit. [62-620.320(6)]
- 3. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e. monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type on DMR	Monitoring Period	Due Date
Monthly or Toxicity	first day of month - last day of month	28 <sup>th</sup> day of following month
Quarterly	January 1 - March 31	April 28
	April 1 - June 30	July 28
	July 1 - September 30	October 28
	October 1 - December 31	January 28
Semiannual	January 1 - June 30	July 28

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	July 1 - December 30	January 28
Annual	January 1 - December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge. The permittee may submit either paper or electronic DMR form(s). If submitting paper DMR form(s), the permittee shall make copies of the attached DMR form(s). If submitting electronic DMR form(s), the permittee shall use a Department-approved electronic DMR system.

The electronic submission of DMR forms shall be accepted only if approved in writing by the Department. For purposes of determining compliance with this permit, data submitted in electronic format is legally equivalent to data submitted on signed and certified paper DMR forms.

The permittee shall submit the completed DMR form(s) to the Department by the twenty-eighth (28th) of the month following the month of operation at the addresses specified below:

Florida Department of Environmental Protection Wastewater Compliance Evaluation Section, Mail Station 3551 Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400

And

Florida Department of Environmental Protection Central District Office 3319 Maguire Boulevard Suite 232 Orlando, Florida 32803-3767 Phone Number - (407) 894-7555

#### [62-620.610(18)]

4. The permittee shall not submit DMR forms that alter the original format or content of the attached DMR forms without written approval from the Department's Central District Office at the address specified below:

Florida Department of Environmental Protection Central District Office 3319 Maguire Boulevard Suite 232 Orlando, Florida 32803-3767 Phone Number - (407) 894-7555

- 5. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24hour notifications, shall be submitted to or reported to, as appropriate, the Department's Central District Office at the address specified above. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. [62-620.305]
- 6. If there is no discharge from the facility on a day when the facility would normally sample, the sample shall be collected on the day of the next discharge. [62-620.320(6)]
- 7. The Permittee shall develop a Plan of Study (POS), subject to Department review and approval, to monitor compliance with Rule 62-302.520(1), F.A.C. pursuant to the schedule in Item VI.4, including a proposed implementation schedule, designed to determine any effects on biological communities from the discharge to Indian River Lagoon. The plan shall include biological sampling prior to start-up of the CCEC Unit 3 in order to establish baseline biological conditions within the receiving waters. The plan shall address monitoring of aquatic species as necessary, including frequency of sampling. The POS shall incorporate relevant existing data

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developed by the Permittee and other sources as well as any necessary additional monitoring to be conducted by the Permittee.

- 8. The permittee shall develop a plan in accordance with the schedule in Condition VI.3 to return live fish, shellfish, and other aquatic organisms collected or trapped on the plant intake screens to their natural habitat. Other material shall be removed from the intake screens and disposed of in accordance with all existing Federal, State and /or local laws and regulations that apply to waste disposal. Such material shall not be returned to the receiving waters.
- The permittee shall maintain plant intake traveling screen practices so as to assure that the screens are cycled at least twice during each 24 hours of continuous operation unless precluded by repair or maintenance requirements.
- 10. The plant intake through-screen velocity shall be maintained at or below levels that existed prior to plant conversion.
- 11. During the period beginning at initiation of discharge and lasting through the expiration date of this permit, the permittee is authorized to discharge non-equipment area stormwater from Outfalls D-024, D-025, D-026, D-027 and D-029 without limitation or monitoring requirements.
- 12. Intake Screen wash water may be discharged without limitation or monitoring requirements, except that there shall be no discharge of a visible sheen.
- 13. The Permittee shall continue compliance with the facility's Manatee Protection Plan approved by the Department on December 21, 2000.
- 14. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which ultimately may be released to waters of the State is prohibited unless specifically authorized elsewhere in this permit. This requirement is not applicable to products used for lawn and agricultural purposes or to the use of herbicides if used in accordance with labeled instructions and any applicable State permit.

The company shall notify the Department in writing no later than six (6) months prior to instituting use of any biocide or chemical (except chlorine as authorized elsewhere in this permit) used in the cooling systems or any other portion of the treatment system which may be toxic to aquatic life. Such notification shall include:

- a. Name and general composition of biocide or chemical
- b. Frequencies of use
- c. Quantities to be used
- d. Proposed effluent concentrations
- e. Acute and/or chronic toxicity data (laboratory reports shall be prepared according to Section 12 of EPA document no. BPA/600/4-90/027 entitled, <u>Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters</u> for Freshwater and Marine Organisms, or most current addition.)
- f. Product data sheet
- g. Product label

The Department shall review the above information to determine if a major or minor pennit revision is necessary. Discharge associated with the use of such biocide or chemical is not authorized without a permit revision by the Department. Permit revisions shall be processed in accordance with the requirements of Chapter 62-620, F.A.C.

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 Florida Power & Light Company

 FACILITY:
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#### II. SLUDGE MANAGEMENT REQUIREMENTS

- 1. The permittee shall be responsible for proper treatment, management, use, and disposal of its sludges. [62-620.320(6)]
- 2. Storage, transportation, and disposal of sludge/solids characterized as hazardous waste shall be in accordance with requirements of Chapter 62-730, F.A.C. [62-730]
- 3. Vegetation and materials removed from intake screens and vegetation, sediments and sludge excavated from the settling basins and percolation basins must be properly stored onsite until they are disposed in accordance with requirements in Chapter 62-701, F.A.C., and other applicable State and Federal requirements. Storage, transportation, and disposal of sludge/solids characterized as hazardous waste shall be in accordance with requirements of Chapter 62-730, F.A.C. [62-730]

#### **III. GROUND WATER REQUIREMENTS**

1. There are no ground water monitoring requirements included in this permit. Ground water monitoring requirements for this facility are included in the Condition of Certification PA 08-53.

#### IV. ADDITIONAL LAND APPLICATION REQUIREMENTS

1. There are no land application discharges at this facility.

#### V. CONSTRUCTION, OPERATION AND MAINTENANCE REQUIREMENTS

- A. General Operation and Maintenance Requirements
  - 1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control. [62-620.320(6)]
  - 2. The permittee shall maintain the following records and make them available for inspection on the site of the permitted facility.
    - a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
    - b. Copies of all reports required by the permit for at least three years from the date the report was prepared;
    - c. Records of all data, including reports and documents, used to complete the application for the permit for at least three years from the date the application was filed;
    - d. Records of all disposal of vegetation and materials removed from intake screens and vegetation, sediments and sludge removed from wastewater and stormwater basins
    - e. A copy of the current permit;
    - f. A copy of any required record drawings; and
    - g. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules.

[62-620.350]

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- **B.** Storm Water Requirements
  - The permittee shall amend the SWPPP whenever there is a change at the facility or change in the operation of the facility that materially increases the potential for the ancillary activities to result in a discharge of additional, significant amounts of pollutants. The permittee shall have 30 days after facility or operational changes to update the SWPPP as necessary.

#### VI. SCHEDULES

1. The following improvement actions shall be completed according to the following schedule. The Storm Water Pollution Prevention Plan (SWPPP) shall be prepared and implemented in accordance with Part VII of this permit.

Improvement Action	Completion Date
1. Develop and implement SWPPP	18 months from commercial operation
2. Complete Plan Summary	2 years from commercial operation
3. Progress/Update Report	3 years, and then annual thereafter

- If the permittee wishes to continue operation of this wastewater facility after the expiration date of this permit, the permittee shall submit an application for renewal no later than one-hundred and eighty days (180) prior to the expiration date of this permit. Application shall be made using the appropriate forms listed in Rule 62-620.910, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C. [62-620.335(1) and (2)
- 3. Within 3 months from the issuance date of this permit, the permittee shall schedule a meeting with the Department to discuss the contents of the aquatic organism return plan in accordance with Condition I.C.8 and shall submit the plan to the Department within 6 months thereafter. The plan shall be implemented upon start-up of the CCEC Unit 3.
- 4. Within 3 months of issuance of this permit, the Permittee shall meet with the Department to discuss the content of a Plan of Study (POS) for biological monitoring in accordance with the requirements of Item I.C.7, and shall submit the POS within 6 months of issuance of this permit. The Department will review the POS and provide written comments to the permittee as needed. The permittee shall implement the POS in accordance with the approved implementation schedule.
- 5. The permittee shall submit a copy of the Manatee Protection Plan, including any amendments, with the permit renewal application to each of the following agencies no later than one-hundred and eighty days (180) prior to the expiration date of this permit:

Florida Department of Environmental Protection Industrial Wastewater Section, Mail Station 3545 Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Florida Fish and Wildlife Conservation Commission Bureau of Protected Species Management 620 South Meridian Street OES-BPS Tallahassee, Florida 32399-1600

And

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US Fish and Wildlife Service Jacksonville Field Office 7915 Baymeadows Way, Suite 200 Jacksonville, Florida 32256-7517

#### VII. STORMWATER POLLUTION PREVENTION PLANS

#### 1. General Requirements

In accordance with Section 304(e) and 402(a)(2) of the Clean Water Act (CWA) as amended, 33 U.S.C. §§ 1251 et seq., and the Pollution Prevention Act of 1990, 42 U.S.C. §§ 13101-13109, the permittee must develop and implement a plan for utilizing practices incorporating pollution prevention measures. References to be considered in developing the plan are "Criteria and Standards for Best Management Practices Authorized Under Section 304(e) of the Act," found at 40 CFR 122.44 Subpart K and the Storm Water Management Industrial Activities Guidance Manual, EPA/833-R92-002 and other EPA documents relating to Best Management Practice guidance.

#### a. Definitions

- (1) The term "pollutants" refers to conventional, non-conventional and toxic pollutants.
- (2) Conventional pollutants are: biochemical oxygen demand (BOD), suspended solids, pH, fecal coliform bacteria and oil & grease.
- (3) Non-conventional pollutants are those which are not defined as conventional or toxic.
- (4) Toxic pollutants include, but are not limited to: (a) any toxic substance listed in Section 307(a)(1) of the CWA, any hazardous substance listed in Section 311 of the CWA, or chemical listed in Section 313(c) of the Superfund Amendments and Reauthorization Act of 1986; and (b) any substance (that is not also a conventional or non-conventional pollutant except ammonia) for which EPA has published an acute or chronic toxicity criterion.
- (5) "Significant Materials" is defined as raw materials; fuels; materials such as solvents and detergents; hazardous substances designated under Section 101(14) of CERCLA; and any chemical the facility is required to report pursuant to EPCRA, Section 313; fertilizers; pesticides; and waste products such as ashes, slag and sludge.
- (6) "Pollution prevention" and "waste minimization" refer to the first two categories of EPA's preferred hazardous waste management strategy: first, source reduction and then, recycling.
- (7) "Recycle/Reuse" is defined as the minimization of waste generation by recovering and reprocessing usable products that might otherwise become waste; or the reuse or reprocessing of usable waste products in place of the original stock, or for other purposes such as material recovery, material regeneration or energy production.
- (8) "Source reduction" means any practice which: (a) reduces the amount of any pollutant entering a waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment or disposal; and (b) reduces the hazards to public health and the environment associated with the release of such pollutant. The term includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control. It does not include any practice which alters the physical, chemical, or biological characteristics or the volume of a pollutant through a process or activity which itself is not integral to, or previously considered necessary for, the production of a product or the providing of a service.
- (9) "SWPPP" means a Storm Water Pollution Prevention Plan incorporating the requirements of 40 CFR § 125, Subpart K, plus pollution prevention techniques, except where other existing programs are deemed equivalent by the permittee. The permittee shall certify the equivalency of the other referenced programs.
- (10) The term "material" refers to chemicals or chemical products used in any plant operation (i.e., caustic soda, hydrazine, degreasing agents, paint solvents, etc.). It does not include lumber, boxes, packing materials, etc.
- 2. Storm Water Pollution Prevention Plan

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The permittee shall develop and implement a SWPPP for the facility, which is the source of wastewater and storm water discharges, covered by this permit. The plan shall be directed toward reducing those pollutants of concern which discharge to surface waters and shall be prepared in accordance with good engineering and good housekeeping practices. For the purposes of this permit, pollutants of concern shall be limited to toxic pollutants, as defined above, known to the discharger. The plan shall address all activities which could or do contribute these pollutants to the surface water discharge, including process, treatment, and ancillary activities.

a. Signatory Authority & Management Responsibilities

The SWPPP shall be signed by permittee or their duly authorized representative in accordance with rule 62-620.305(2)(a) and (b). The SWPPP shall be reviewed by plant environmental/engineering staff and plant manager. Where required by Chapter 471-(P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of the SWPPP shall be signed and sealed by the professional(s) who prepared them.

A copy of the plan shall be retained at the facility and shall be made available to the permit issuing authority upon request.

The SWPPP shall contain a written statement from corporate or plant management indicating management's commitment to the goals of the SWPPP. Such statements shall be publicized or made known to all facility employees. Management shall also provide training for the individuals responsible for implementing the SWPPP.

- b. SWPPP Requirements
  - (1) A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate.
  - (2) A site map showing:
    - (a) The storm water conveyance and discharge structures;
    - (b) An outline of the storm water drainage areas for each storm water discharge point;
    - (c) Paved areas and buildings;
    - (d) Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates;
    - (e) Location of existing or future storm water structural control measures/practices (dikes, coverings, detention facilities, etc.);
    - (f) Surface water locations and/or municipal storm drain locations;
    - (g) Areas of existing and potential soil erosion;
    - (h) Vehicle service areas;
    - (i) Material loading, unloading, and access areas;
  - (3) A narrative description of the following:
    - (a) The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;
    - (b) Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;
    - (c) Existing or future structural and non-structural control measures/practices to reduce pollutants in storm water discharges;

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- (d) Industrial storm water discharge treatment facilities;
- (e) Methods of onsite storage and disposal of significant materials;
- (f) Overall objectives (both short-term and long-term) and scope of the plan, specific reduction goals for pollutants, anticipated dates of achievement of reduction, and a description of means for achieving each reduction goal;
- (g) A description of procedures relative to spill prevention, control & countermeasures and a description of measures employed to prevent storm water contamination;
- (h) A description of practices involving preventive maintenance, housekeeping, recordkeeping, inspections, and plant security; and
- 2. The description of a waste minimization assessment performed in accordance with the conditions outlined in condition c below, results of the assessment, and a schedule for implementation of specific waste reduction practices.
- (4) A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities.
- (5) An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.
- (6) A summary of existing sampling data describing pollutants in storm water discharges.
- Waste Minimization Assessment C.

The permittee is encouraged but not required to conduct a waste minimization assessment (WMA) for this facility to determine actions that could be taken to reduce waste loading and chemical losses to all wastewater and/or storm water streams as described in Part VII.D.2 of this permit.

If the permittee elects to develop and implement a WMA, information on plan components can be obtained forms the Department's Industrial Wastewater website, or from:

Florida Department of Environmental Protection Industrial Wastewater Section, Mail Station 3545 2600 Blair Stone Road Tallahassee, Florida 32399-2400 (850) 245-8589 (850) 245-8669 - Fax

d. Pollution Prevention Committee:

A pollution prevention committee within the plant organization shall be appointed. These members shall be responsible for developing the SWPPP and assisting the plant manager in its implementation, maintenance, and revision.

- Employee Training e.
  - (1) The permittee shall describe the storm water employee training program for the facility. The description shall include the topics to be covered, such as spill response, good housekeeping and material management practices, and shall identify periodic dates (e.g., every 6 months during the months of July and January) for such training. The permittee shall provide employee training for all employees and contractors that work in areas where industrial materials or activities are exposed to storm water, and for employees that are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance people). The employee training shall inform facility personnel and contractors of the components and goals of the facility SWPPP.

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- (2) Each employee and contractor that works in an areas where industrial materials or activities are exposed to storm water, and each employee that is responsible for implementing activities identified in the SWPPP shall undergo training at least once a year. Training records shall include trainee's name, signature, date of training and topics covered. Records shall be retained on-site for a minimum of three years.
- f. Plan Development & Implementation
  - (1) The SWPPP shall be developed and implemented 18 months after the effective date of this permit, unless any later dates are specified in this permit. Any portion of the SWPPP which is ongoing at the time of development or implementation shall be described in the plan. Any waste reduction practice which is recommended for implementation over a period of time shall be identified in the plan, including a schedule for its implementation.
  - (2) The personnel named in the SWPPP shall perform and document a quarterly visual observation of a storm water discharge associated with industrial activity from each outfall. The visual observation shall be made during daylight hours. If no storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, the permittee is excused from the visual observation requirement for that quarter, provided the permittee documents in their records that no runoff occurred. The permittee shall sign and certify the documentation.
  - (3) The personnel named in the SWPPP shall conduct visual observations on samples collected as soon as practical, but not to exceed 1 hour of when the runoff begins discharging from the facility. All samples must be collected from a storm event discharge that is greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The observation shall document: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution.
  - (4) The permittee shall maintain visual observation reports onsite with the SWPPP for a minimum of three years. The report must include the observation date and time, inspection personnel, nature of the discharge (i.e., runoff), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.
  - (5) At least once a year the personnel named in the SWPPP shall verify that the description of potential pollutant sources required under this permit is accurate; the site map as required in the SWPPP has been updated or otherwise modified to reflect current conditions; and the controls to reduce pollutants in storm water discharges associated with industrial activity identified in the SWPPP are being implemented and are adequate.
- g. Submission of Plan Summary & Progress/Update Reports
  - (1) Plan Summary: Not later than 2 years after the effective date of the permit, a summary of the SWPPP shall be developed and maintained at the facility and made available to the permit issuing authority upon request. The summary should include the following: a brief description of the plan, its implementation process, schedules for implementing identified waste reduction practices, and a list of all waste reduction practices being employed at the facility. The results of waste minimization assessment studies already completed as well as any scheduled or ongoing WMA studies shall be discussed.
  - (2) Progress/Update Reports: Annually thereafter for the duration of the permit progress/update reports documenting implementation of the plan shall be maintained at the facility and made available to the permit issuing authority upon request. The reports shall discuss whether or not implementation schedules were met and revise any schedules, as necessary. The plan shall also be updated as necessary and the attainment or progress made toward specific pollutant reduction targets documented. Results of

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any ongoing WMA studies as well as any additional schedules for implementation of waste reduction practices shall be included.

(3) A timetable for the various plan requirements follows:

Timetable for SWPPP Requirements:

REQUIREMENT	TIME FROM EFFECTIVE DATE OF THIS PERMIT
Complete SWPPP	18 months
Complete Plan Summary	2 years
Progress/Update Reports	3 years, and then annually thereafter

The permittee shall maintain the plan and subsequent reports at the facility and shall make the plan available to the Department upon request.

h. Plan Review & Modification

If following review by the Department, the SWPPP is determined insufficient, the permittee will be notified that the SWPPP does not meet one or more of the minimum requirements of this Part. Upon such notification from the Department, the permittee shall amend the plan and shall submit to the Department a written certification that the requested changes have been made. Unless otherwise provided by the Department, the permittee shall have 30 days after such notification to make the changes necessary.

The permittee shall modify the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to waters of the State or if the plan proves to be ineffective in achieving the general objectives of reducing pollutants in wastewater or storm water discharges. Modifications to the plan may be reviewed by the Department in the same manner as described above.

The permittee may incorporate applicable portions of plans prepared for other purposes. Plans or portions of plans incorporated into a SWPPP become enforceable requirements of this permit.

#### VIII. OTHER SPECIFIC CONDITIONS

#### A. Specific Conditions Applicable to All Permits

- 1. Where required by Chapter 471 or Chapter 492, F.S., applicable portions of reports that must be submitted under this permit shall be signed and sealed by a professional engineer or a professional geologist, as appropriate. [62-620.310(4)]
- 2. The permittee shall provide verbal notice to the Department's Central District Office as soon as practical after discovery of a sinkhole or other karst feature within an area for the management or application of wastewater, or wastewater sludges. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department's Central District Office in a written report within 7 days of the sinkhole discovery. [62-620.320(6)]

#### B. Duty to Reapply

1. The permittee is not authorized to discharge to waters of the State after the expiration date of this permit, unless:

a. the permittee has applied for renewal of this permit at least 180 days before the permit expiration date using the appropriate forms listed in Rule 62-620.910, F.A.C., and in the manner established in the Department of

Docket No. 120007-EI Riviera Plant (PRV) NPDES Permit RRL-6, Page 1 of 15

> Rick Scott Governor



#### CERTIFIED MAIL RETURN RECEIPT REQUESTED

In the Matter of an Application for Permit by:

Mr. Mark Lemasney Plant General Manager Florida Power & Light Company 200-300 Broadway Rivera, Florida 33404

### Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 lennifer Carroll Lt. Governor

Herschel T. Vinyard Jr. Secretary

PA File No. FL0001546-006-IW1S Palm Beach County Riviera Power Plant NPDES Permit No. FL0001546

#### NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number FL0001538 to Florida Power & Light Company, authorizing wastewater discharge from the Riviera Power Plant to the Intracoastal Waterway (Lake Worth), a Class III marine water, issued under Section 403.0885, Florida Statutes, and DEP Rule 62-620, Florida Administrative Code.

The plant is scheduled to undergo modernization between 2011 and 2014. The modernization project includes the construction of a nominal 1,250 megawatt natural gas-fired combined cycle unit system ("3-on-1") designated as Unit 5. In addition, this project includes the permanent shutdown of Units 3 and 4. RBEC Unit 5 is projected to be operational in June 2014. RBEC Unit 5 uses the existing once-through cooling water system and Outfalls D-013 and D-014 servicing Units 3 and 4. This permit revision does not authorize an increase in the quantity or a change in the quality of the wastewater discharges to Lake Worth Lagoon a Class III Marine Water.

Any party to this order (permit) has the right to seek judicial review of the permit action under Section 120.68, Florida Statutes, by the filing of a notice of appeal under Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when this document is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mark P. Thomasson, P.E. Director Division of Water Resource Management 2600 Blair Stone Road Tallahassee, FL 32399-2400

www.dep.state.fl.us

FACILITY: Rivera Power Plant PERMITTEE: Florida Power & Light Company Docket No. 120007-EI Riviera Plant (PRV) NPDES Permit RRL-6, Page 2 of 15 Page 2 of 2 Permit FL0001546

#### FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52, Florida Statutes, with the designated deputy clerk, receipt of which is hereby acknowledged.

J. Shields 08-17-2011

#### CERTIFICATE OF SERVICE

The undersigned hereby certifies that this DOCUMENT AND ATTACHMENTS and all copies were mailed before the close of business on  $\underline{OB - 17 \cdot 2011}$  to the listed persons.

ley shields

<u> 08-17-2011</u> Date

Certified copies furnished to:

Mark Nuhfer, NPDES Permitting Section, EPA Region 4, Atlanta, GA Chairman, Board of Broward County Commissioners

Copies furnished by First Class mail to:

Florida Fish and Wildlife Conservation Commission, Conservation Planning Services U.S. Fish & Wildlife Service Andy Flajole, Florida Power and Light

Copies furnished by intradepartmental mail to: Linda Brien, P.G., DEP West Palm Beach John Armstrong, P.E., DEP West Palm Beach Michael Hambor, DEP West Palm Beach Cindy Mulkey, DEP Tallahassee

#### SECOND AMENDMENT TO THE FACT SHEET

DATE: August 10, 2011

PERMIT NUMBER: FL0001546

PERMITTEE: Florida Power & Light Riviera Beach Energy Complex

The following minor corrections and revisions have been made to the proposed permit. None of these corrections alter any of the limitations for discharge to water of the state.

#### 1. <u>Typographical Errors in the Proposed Permit</u>

The Department and the Permittee noted several typographical errors which are not listed in the items below. The Department has corrected these errors, which were non-substantive and did not affect any permit limitations or monitoring requirements.

#### 2. Comments by the Permittee Requesting Changes to the Proposed Permit

Page 1, Facility Description. The permittee requested that the facility description be revised to clarify the piping assembly for the once-through cooling water discharge from Outfall D-013. The Department concurred and the description was revised.

Page 13, VI.3. The permittee requested that the schedule for the aquatic organism return system be revised to be consistent with the language in the Amendment to the Factsheet issued with the Notice of Intent for this revision. The Department concurred.

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#### 3. Other Comments

No comments were received from the public or from other governmental agencies.

#### STATE OF FLORIDA INDUSTRIAL WASTEWATER FACILITY PERMIT

#### **PERMITEE:**

Florida Power & Light Company (FPL)

PERMIT NUMBER: FL FILE NUMBER: FL

FL0001546 (Major) Rev. A FL0001546-006-IW1S

ISSUANCE DATE: August 28, 2010 REVISION DATE: August 19, 2011 EXPIRATION DATE: August 27, 2015

#### **RESPONSIBLE OFFICIAL:**

Mr. Mark Lemasney Plant Manager 200-300 Broadway Riviera Beach, Florida 33404

#### FACILITY:

Riviera Beach Energy Center (RBEC) 200-300 Broadway Riviera Beach, FL 33404 Palm Beach County Latitude: 26°45'51.9" N Longitude: 80°03' 9.89" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and applicable rules of the Florida Administrative Code (F.A.C.) and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. The above named permitee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

#### FACILITY DESCRIPTION:

The facility is an electric generating plant with a total nameplate rating of 1250 megawatts (MW). RBEC consists of a combined cycle unit system, designated as Unit 5. Unit 5 consists of three gas turbines. Exhaust from each gas turbine passes through a separate supplementary gas fired heat recovery steam generator (HRSG). Steam from each HRSG is delivered to a single steam turbine-electrical generator. Unit5 is capable of burning a variable combination of natural gas and No. 2 ultralow sulfur distillate fuel oil as a backup fuel oil.

Unit 5 has condenser once-through cooling water (OTCW) and auxiliary equipment cooling water (AECW) systems that use water from Lake Worth Lagoon, a coastal marine water body. AECW and other Unit 5 wastewater streams comingle with the OTCW. The OTCW passes a seal well overflow structure (a structure that works as a dampener for the discharge). The majority of the combined OTCW and AECW flows are discharged through two submerged pipelines, approximately 2,000 feet in length that extend into the Lake Worth Lagoon. The ends of those pipes are located approximately at latitude 26°45' 52" N, longitude 80° 02' 21" W. The remaining portion of the OTCW is discharged to the facility's shoreline embayment to provide a warm-water refugia for West Indian Manatees pursuant to the facility's Manatee Protection Plan."

Unit 5 is also regulated under the Florida Electrical Power Plant Siting Act (License No. PA09-54).

#### WASTEWATER TREATMENT:

Once-through condenser cooling water and auxiliary equipment cooling water are chlorinated followed by dechlorination prior to discharge. OTCW is discharged via Outfall D-013. AECW is discharged via internal outfall I-015 to the OTCW conduits and hence to Outfall D-013. Metal cleaning wastewater and reverse osmosis membrane cleaning wastewater will be disposed of off-site. Regeneration of mixed bed ion exchange units will be performed off-site.

Plant/equipment drains that receive wash down water from cleaning and maintenance activities are routed through an oil/water separator prior to discharge via internal outfall I-016 to the OTCW conduits and hence to Outfall D-013. Water treatment plant wastewater (including Reverse Osmosis (RO) reject, softener, multimedia filter backwash, low-volume and metal cleaning wastewater ) will be discharged from internal Outfall I-017 to the OTCW conduits and hence to Outfall D-013. When possible, Heat Recovery Steam Generator (HRSG) and Evaporative Cooler blowdown will be reused as make-up water

PERMITEE: Florida Power & Light Company FACILITY: Riviera Beach Energy Center

Docket No. 120007-El Riviera Plant (PRV) NPDES Permit RRL-6, Page 5 of 15 PERMIT NUMBER:

EXPIRATION DATE:

FL0001546 (Major) Rev. A August 27, 2015

to the on-site water treatment system. Alternatively, the combined blowdown will be discharged from internal outfall I-018 to the OTCW conduits and hence to Outfall D-013.

Equipment area storm water from the power block and transformer containment areas is routed through an oil/water separator and then to a series of connected on-site retention ponds (that also receive non-equipment area storm water) prior to discharge. Storm water discharges from RBECare authorized under the State-issued Water Multi-Sector General Permits for stormwater associated with Industrial Activities (MSGPs)

#### **EFFLUENT DISPOSAL:**

Surface Water Discharge D-009: An existing permitted discharge to Intracoastal Waterway, Class III Marine Waters (WBID 3226E1). The point of discharge is located approximately at 26° 45' 55" N, longitude 80° 03' 03" W.

Surface Water Discharge D-012/D-182: An existing permitted outfall to Intracoastal Waterway, Class III Marine Waters (WBID 3226E1). The point of discharge is located approximately at latitude 26°45' 50 N, longitude 80°03' 03" W.

Surface Water Discharge D-013: An existing permitted discharge to Intracoastal Waterway, Class III Marine Waters (WBID 3226E1). The point of discharge is located approximately at latitude 26°45' 52" N, longitude 80° 02 40" W (seal well lat and long needed).

Internal Outfall I-015: A permitted discharge of auxiliary equipment cooling water leading to the OTCW conduits and hence to Outfall D-013. The point of discharge is located approximately at latitude 26°45' 52" N, longitude 80° 03' 40" W.

Internal Outfail I-016: A permitted discharge of plant/equipment drain wastewater leading to the OTCW conduits and hence to Outfall D-013. The point of discharge is located approximately at latitude 26°45' 52" N, longitude 80° 03' 40" W.

Internal Outfall I-017: A permitted discharge of water treatment plant wastewater leading to the OTCW conduits and hence to Outfall D-013. The point of discharge is located approximately at latitude 26°45' 52" N, longitude 80° 03' 40" W.

Internal Outfall I-018: A permitted discharge of HRSG blowdown leading to the OTCW conduits and hence to Outfall D-013. The point of discharge is located approximately at latitude 26°45' 52" N, longitude 80° 03' 40" W.

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions set forth in this Cover Sheet and Part I through Part IX on pages 1 through 20 of this permit.

PERMITEE:	Florida Power & Light Company
FACILITY:	Riviera Beach Energy Center

### I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

#### A. Surface Water Discharges

- 1. The permitee shall not discharge from Outfall D-012/D-182 without written approval from the Department.
- 2. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permitee is authorized to discharge the combined plant discharge (consisting of once-through and auxiliary equipment cooling water, plant/equipment drain wastewater, water treatment plant wastewater, and HRSG/evaporative cooler blowdown) from Outfall D-013 to two submerged pipelines approximately 2, 000 feet in length and the shoreline embayment. Such discharge shall be limited and monitored by the permitee as specified below and reported in accordance with Permit Condition I.C.3:

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			Eff	iuent Limitations	Mon	itoring Requireme	ents	
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Instant. Maximum Monthly Average	Continuous	Calculated	FLW-1	
Chlorination Duration	min/day	Max	120	Instant. Maximum	Daily; 24 hours	Calculated	OTH-1	See I.A.4
Oxidants, Total Residual	mg/L	Max Max	0.01 0.01	Daily Maximum Monthly Average	Weekly	Grab	EFF-1	See I.A.5
Temp. Difference between Intake and Discharge	Deg F	Max Max	Report Report	Daily Average Monthly Average	6 times per day	Meter	EFF-1 INT-1	
Temperature, Water	Deg F	Max Max	Report Report	Daily Average Monthly Average	6 times per day	Meter	EFF-1	
Copper, Total Recoverable	ug/L	Max Max	3.7 3.7	Daily Maximum Monthly Average	Monthly	24-hr FPC	EFF-1	See I.A.6
		Max Max	Report Report	Daily Maximum Monthly Average	Montary	24 11 11 0	INT-1	500 10 10
Iron, Total Recoverable		Max Max	0.3 0.3	Daily Maximum Monthly Average	Monthly	24-hr FPC	EFF-1	See I.A.6
	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Monuny	24-m Fr C	INT-1	
Thallium, Total Recoverable	ug/L	Max Max	6.3 6.3	Daily Maximum Monthly Average	- Monthly	24-hr FPC	EFF-1	See LA.6
	, ug/ 5	Max Max	Report Report	Daily Maximum Monthly Average			INT-1	
Chronic Whole Effluent Toxicity, 7-Day IC25 (Americamysis bahia)	percent	Min	100	Single Sample	Quarterly	24-hr Composite	EFF-1 EFF-2	See I.A.7
Chronic Whole Effluent Toxicity, 7-Day IC25 (Menidia beryllina)	percent	Min	100	Single Sample	Quarterly	24-hr Composite	EFF-1	See I.A.7

3. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.2. and as described below:

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# PERMITEE:Florida Power & Light CompanyFACILITY:Ríviera Beach Energy Center

Monitoring Site Number	Description of Monitoring Site
FLW-1	Calculated flow for the combined discharge from Outfall D-013.
OTH-1	At the point of chlorine addition for Unit 5 OTCW
EFF-1	At the seal well overflow structure for Outfall D-013
INT-1	Once-through cooling water intake for Unit 5

- 4. Sodium hypochlorite and gaseous chlorine may be used as a biocide in the cooling water systems for Unit 5. No other biocide shall be used without explicit approval from the Department (see Permit Condition I.C.9).
- 5. Total Residual Oxidants (TRO) means the value obtained using the amperometric titration method for total residual chlorine or the Hach model 19300 (or equivalent). Testing for TRO by titration shall be conducted according to either the low-level amperometric method, or the DPD calorimetric method as specified in section 4500-CI E. or 4500 CI G., respectively, Standard Methods for the examination of Water and Waste water, 18th Edition (or most current edition).

The permittee shall collect samples weekly when chlorine is in use. TRO monitoring requirements for Unit 5 are not applicable for any week in which chlorine is not added.

Multiple grabs for TRO shall be defined as once per five minutes during TRO discharge periods of 30 minutes or less and once per 15 minutes for periods exceeding 30 minutes with no less than four analyses during the period of TRO discharge (sampling shall be continued until the end of the TRO discharge).

- 6. The limits for Total Recoverable Copper, Iron, and Thallium shall be the water quality standards set forth in Rule 62-302.530, F.A.C., for Class III waters as specified here or the concentration of the intake cooling water, whichever is greater. If the Outfall D-013composite sample exceeds the water quality standard concentration the Permitee shall analyze and report the intake concentration. The intake composite sample shall be collected on the same day as those for Outfall D-013. The intake composite samples shall be preserved and stored in accordance with DEP SOPs. If the intake concentration exceeds the water quality standard and the Outfall D-013 composite samples is less than or equal to the intake concentration, the facility shall be in compliance with the limitation. If both the intake concentration of a minimum of five (5) additional subsamples shall be analyzed from the original intake and outfall composites. The results shall be evaluated using the "student's t-test" comparing discharge concentrations with the intake concentrations. Unless the discharge concentration exceeds the intake concentration at the 95% confidence level, the facility shall be in compliance with the limitation.
- 7. The permitee shall comply with the following requirements to evaluate chronic whole effluent toxicity of the discharge from outfall D-013.
  - a. Effluent Limitation
    - In any routine or additional follow-up test for chronic whole effluent toxicity, the 25 percent inhibition concentration (IC25) shall not be less than 100% effluent. [Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.]
    - (2) For acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent in any test. [Rules 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]
  - b. Monitoring Frequency

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- (1) Routine toxicity tests shall be conducted once every three months, the first day of the second month following the commercial operation date of RBEC and lasting for the duration of this permit.
- (2) Upon completion of four consecutive, valid routine tests that demonstrate compliance with the effluent limitation in 7.a.(1) above, the permittee may submit a written request to the Department for a reduction in monitoring frequency to once every six months. The request shall include a summary of the data and the complete bioassay laboratory reports for each test used to demonstrate compliance. The Department shall act on the request within 45 days of receipt. Reductions in monitoring shall only become effective

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# PERMITEE:

FACILITY:

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upon the Department's written confirmation that the facility has completed four consecutive valid routine tests that demonstrate compliance with the effluent limitation in 7.a.(1) above.

- (3) If a test within the sequence of the four is deemed invalid based on the acceptance criteria in EPA-821-R-02-014, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive valid tests for the purpose of evaluating the reduction of monitoring frequency.
- Sampling Requirements C.
  - (1) For each routine test or additional follow-up test conducted, a total of three 24-hour composite samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-014, Section 8.
  - (2) The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.
  - (3) Samples for routine and additional follow-up tests shall not be collected on the same day.
- Test Requirements d.
  - (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: 100%, 50%, 25%, 12.5%, and 6.25% final effluent.
  - (2) The permitee shall conduct 7-day survival and growth chronic toxicity tests with a mysid shrimp, Americamysis bahia, Method 1007.0, and an inland silverside, Menidia beryllina, Method 1006.0, concurrently.
  - (3) All test species, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, 3rd Edition, EPA-821-R-02-014. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permitee shall conduct chronic toxicity testing in accordance with the revised method.
  - (4) The control water and dilution water used shall be artificial sea salts as described in EPA-821-R-02-014, Section 7.2. The test salinity shall be determined as follows:
    - (a) For the Americamysis bahia bioassays, the effluent shall be adjusted to a salinity of 20 parts per thousand (ppt) with artificial sea salts. The salinity of the control/dilution water (0% effluent) shall be 20 ppt. If the salinity of the effluent is greater than 20 ppt, no salinity adjustment shall be made to the effluent and the test shall be run at the effluent salinity. The salinity of the control/dilution water shall match the salinity of the effluent.
    - (b) For the Menidia beryllina bioassays, if the effluent salinity is less than 5ppt, the salinity shall be adjusted to 5 ppt with artificial sea salts. The salinity of the control/dilution water (0% effluent) shall be 5 ppt. If the salinity of the effluent is greater than 5 ppt, no salinity adjustment shall be made to the effluent and the test shall be run at the effluent salinity. The salinity of the control/dilution water shall match the salinity of the effluent.
    - (c) If the salinity of the effluent requires adjustment, a salinity adjustment control should be prepared and included with each bioassay. The salinity adjustment control is intended to identify toxicity resulting from adjusting the effluent salinity with artificial sea salts. To prepare the salinity adjustment control, dilute the control/dilution water to the salinity of the effluent and adjust the salinity of the salinity adjustment control at the same time and to the same salinity that the salinity of the effluent is adjusted using the same artificial sea salts.
- Quality Assurance Requirements e.
  - (1) A standard reference toxicant (SRT) quality assurance (QA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly chronic toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-OA data shall be included in the reports for each companion routine or additional follow-up test required.

#### PERMITEE: Florida Power & Light Company FACILITY: Riviera Beach Energy Center

- (2) If the mortality in the control (0% effluent) exceeds 20% for either species in any test or any test does not meet "test acceptability criteria", the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-014, Section 14.12 (Americamysis bahia) and Section 13.12 (Menidia beryllina). The repeat test shall begin within 21 days after the last day of the invalid test.
- (3) If 100% mortality occurs in all effluent concentrations for either species prior to the end of any test and the control mortality is less than 20% at that time, the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non-compliance.
- (4) Routine and additional follow-up tests shall be evaluated for acceptability based on the observed doseresponse relationship as required by EPA-821-R-02-014, Section 10.2.6., and the evaluation shall be included with the bioassay laboratory reports.
- f. Reporting Requirements
  - Results from all required tests shall be reported on the Discharge Monitoring Report (DMR) as follows:
     (a) Routine and Additional Follow-up Test Results: The calculated IC25 for each test species shall be entered on the DMR.
  - (2) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-014, Section 10, Report Preparation and Test Review, and mailed to the Department at the address below within 30 days after the last day of the test.
  - (3) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-014, Section 10, and mailed within 30 days after the last day of the second valid additional follow-up test.
  - (4) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.
  - (5) The same bioassay data shall not be reported as the results of more than one test.
  - (6) All bioassay laboratory reports shall be sent to: Florida Department of Environmental Protection Tallahassee Office 2600 Blair Stone Road, M.S. 3545 Tallahassee, Florida 32399-2400
- g. Test Failures
  - (1) A test fails when the test results do not meet the limits in 7.a.(1).
  - (2) Additional Follow-up Tests:
    - (a) If a routine test does not meet the chronic toxicity limitation in 7.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 7.d.
    - (b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.
    - (c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, and 6.25% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be analyzed according to the procedures in EPA-821-R-02-014.
  - (3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permitee shall notify the Department within 21 days after the last day of the third test failure.
    - (a) The permitee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.
    - (b) The Department shall review and approve the plan before initiation.
    - (c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
    - (d) Progress reports shall be submitted quarterly to the Department at the address above.

#### PERMITEE: FACILITY:

Florida Power & Light Company Riviera Beach Energy Center Docket No. 120007-EI Riviera Plant (PRV) NPDES Permit RRL-6, Page 10 of 15 PERMIT NUMBER: FL0001546 (Major) Rev. A EXPIRATION DATE: August 27, 2015

- (e) During the implementation of the plan, the permitee shall conduct quarterly routine whole effluent toxicity tests in accordance with 7.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 7.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-014, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.
- (f) Upon completion of four consecutive quarterly valid routine tests that demonstrate compliance with the effluent limitation in 7.a.(1) above, the permitee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive quarterly valid routine whole effluent toxicity tests. If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive quarterly valid routine tests for the purpose of terminating the plan.
- (4) If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 7.(a)(2), the Department may revise this permit to require acute definitive whole effluent toxicity testing.
- (5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity failures.

[62-4.241, 62-620.620(3)]

- 8. The discharge shall not contain components that settle to form putrescent deposits or float as debris, scum, oil, or other matter. [62-302.500(1)(a)]
- Discharges from Outfall D-013 are subject to thermal limitations established by Rule 62-302.520(1), F.A.C.
- 10. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge intake screen wash water from Outfall D-009. Discharge of intake screen wash water is permitted without limitation or monitoring requirements.

#### **B.** Internal Outfalls

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permitee is authorized to discharge Auxiliary Equipment Cooling Water from Outfall I-015 to the OTCW conduits and hence to Outfall D-013. Such discharge shall be limited and monitored by the permitee as specified below and reported in accordance with Permit Condition I.C.3:

		Ĩ	Efflu	ent Limitations	Mon	itoring Requirema	ante	
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Continuous	Calculated	FLW-2	
Chlorination Duration	min/day	Max	1440	Instant. Maximum	Daily; 24 hours	Calculated	OUI-1	

2. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.1. and as described below:

## PERMITEE: Florida Power & Light Company FACILITY: Riviera Beach Energy Center

Monitoring Site	
Number	Description of Monitoring Site
FLW-2	Flow calculation for auxiliary equipment cooling water for Unit 5
OUI-1	At the point of chlorine addition for Unit 5 AECW

3. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permitee is authorized to discharge Plant/Equipment Drain Wastewater from I-016 to OTCW conduits and hence to Outfall D-013. Such discharge shall be limited and monitored by the permitee as specified below and reported in accordance with Permit Condition I.C.3.:

			Effl	uent Limitations	Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Monthly	Calculated	FLW-3	
Oil and Grease	mg/L	Max Max	15.0 20.0	Monthly Average Daily Maximum	Monthly	Grab	OUI-2	
Solids, Total Suspended	mg/L	Max Max	30.0 100.0	Monthly Average Daily Maximum	Monthly	Grab	OU1-2	
pH	s.u.	Min Max	6.0 9.0	Instant. Minimum Instant. Maximum	Monthly	Grab	ОІЛ-2	<u> </u>

4. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.3 and as described below:

Monitoring Site	
Number	Description of Monitoring Site
FLW-3	Flow calculation for Plant/Equipment Drain Wastewater
OUI-2	At the point of discharge to the OTCW conduits

5. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permitee is authorized to discharge Water Treatment Plant Wastewater from I-017 to the OTCW conduits and hence to Outfall D-013. Such discharge shall be limited and monitored by the permitee as specified below and reported in accordance with Permit ConditionI.C.3.:

			Efflu	ent Limitations	Mor	litoring Requirement	nts	
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	2/month	Pump Logs	FLW-4	
Solids, Total Suspended	mg/L	Max Max	30.0 100.0	Monthly Average Daily Maximum	2/month	Composite	OUI-3	See I.B.7
Oil and Grease	mg/L	Max Max	15.0 20.0	Monthly Average Daily Maximum	2/month	Grab	OUI-3	
pН	s.u.	Min Max	6.0 9.0	Instant. Minimum Instant. Maximum	2/month	Grab	OUI-3	

6. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.5. and as described below:

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# PERMITEE:Florida Power & Light CompanyFACILITY:Riviera Beach Energy Center

PERMIT NUMBER: FL0001546 (Major) Rev. A EXPIRATION DATE: August 27, 2015

Monitoring Site	
Number	Description of Monitoring Site
FLW-4	Flow calculation for Water Treatment Plant Wastewater
OUI-3	At the point of discharge to the OTCW conduits and prior to mixing with any other
	wastewater stream.

- 7. The composite sample shall be consists of grab samples taken at the beginning, middle and end of the Backwash Basin discharge period.
- 8. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permitee is authorized to discharge Heat Recovery Steam Generator Blowdown from I-018 to the OTCW conduits and hence to Outfall D-013. Such discharge shall be limited and monitored by the permitee as specified below and reported in accordance with Permit Condition I.C.3.:

				Efflu	ent Limitations	Mor	• • •		
	Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flo	ow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Monthly	Logs	FLW-4	
Oil	il and Grease	mg/L	Max Max	15.0 20.0	Monthly Average Daily Maximum	Monthly	Grab	OUI-4	
	olids, Total spended	mg/L	Max Max	30.0 100.0	Monthly Average Daily Maximum	Monthly	Grab	OUI-4	

9. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.8. and as described below:

Monitoring Site	
Number	Description of Monitoring Site
FLW-5	Flow calculation for Heat Recovery Steam Generator Blowdown
OUI-4	At the point of discharge to the OTCW conduits

### C. Other Limitations and Monitoring and Reporting Requirements

- 1. The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (April 26, 2006)" is available at http://www.dep.state.fl.us/labs/library/index.htm. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:
  - a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;
  - b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and

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c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

When the analytical results are below method detection or practical quantitation limits, the permitee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

Where necessary, the permitee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the abovereferenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. [62-4.246, 62-160]

- 2. The permitee shall provide safe access points for obtaining representative influent and effluent samples which are required by this permit. [62-620.320(6)]
- 3. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permitee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permitee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e. monthly, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type on DMR	Monitoring Period	Due Date
Monthly	first day of month - last day of month	28 <sup>th</sup> day of following month
Quarterly	January 1 - March 31	April 28
	April 1 - June 30	July 28
	July 1 - September 30	October 28
	October 1 - December 31	January-28
Semiannual	January 1 - June 30	July 28
	July 1 - December 30	January 28
Annual	January 1 - December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge. The permittee may submit either paper or electronic DMR form(s). If submitting paper DMR form(s), the permittee shall make copies of the attached DMR form(s). If submitting electronic DMR form(s), the permittee shall use a Department-approved electronic DMR system.

The electronic submission of DMR forms shall be accepted only if approved in writing by the Department. For purposes of determining compliance with this permit, data submitted in electronic format is legally equivalent to data submitted on signed and certified paper DMR forms.

The permitee shall submit the completed DMR form(s) to the Department by the twenty-eighth (28th) of the month following the month of operation at the addresses specified below:

Florida Department of Environmental Protection Wastewater Compliance Evaluation Section, Mail Station 3551 Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400

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# PERMITEE:Florida Power & Light CompanyFACILITY:Riviera Beach Energy Center

PERMIT NUMBER: EXPIRATION DATE:

R: FL0001546 (Major) Rev. A TE: August 27, 2015

Florida Department of Environmental Protection Southeast District Office 400 N. Congress Ave. West Palm Beach, Florida 33416 Phone Number - (561) 681-6600

[62-620.610(18)]

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4. The permitee shall not submit DMR forms that alter the original format or content of the attached DMR forms without written approval from the Department's Southeast District Office at the address specified below:

Florida Department of Environmental Protection Southeast District Office 400 N. Congress Ave. West Palm Beach, Florida 33416 Fax Number - (561) 681-6760

- 5. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24hour notifications shall be submitted to or reported to, as appropriate, the Department's Southeast District Office at the address specified above. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. [62-620.305]
- 6. If there is no discharge from the facility on a day when the facility would normally sample, the sample shall be collected on the day of the next discharge. [62-620.320(6)]
- 7. The Permitee shall develop a Plan of Study (POS), subject to Department review and approval, to monitor compliance with Rule 62-302.520(1), F.A.C. pursuant to the schedule in Item VI.2, including a proposed implementation schedule, designed to determine any effects on biological communities from the discharge to the Lake Worth Lagoon. The plan may include biological sampling prior to start-up of the RBEC Unit 5 in order to establish baseline biological conditions within the receiving waters. The plan shall address monitoring of aquatic species as necessary, including frequency of sampling. The POS shall incorporate relevant existing data developed by the Permitee and other sources as well as any necessary additional monitoring to be conducted by the Permitee.
- 8. The permitee shall develop a plan in accordance with the schedule in Condition VI.3 to return live fish, shellfish, and other aquatic organisms collected or trapped on the plant intake screens to their natural habitat. Other material shall be removed from the intake screens and disposed of in accordance with all existing Federal, State and /or local laws and regulations that apply to waste disposal. Such material shall not be returned to the receiving waters.
- The permittee shall maintain plant intake traveling screen practices so as to assure that the screens are cycled at least twice during each 24 hours of continuous operation unless precluded by repair or maintenance requirements.
- 10. The plant intake through-screen velocity shall be maintained at or below levels that existed prior to plant conversion.
- 11. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid. The permittee shall dispose of all known PCB equipment, articles, and wastes either in accordance with: a) Department-issued permits governing soil thermal treatment (Chapter 62-713, F.A.C.) or Department-approved landfills provided the PCB concentrations meet the Florida landfill's permitted limit when concentrations are less than 50 ppm; or b)40 CFR 761 when concentrations are greater than or equal to50 ppm. [40 CFR Part 423.12(b)(2)]

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- 12. The Permitee shall continue compliance with the facility's Manatee Protection Plan approved by the Department on December 21, 2000, and the amendment approved on May 8, 2003, and as amended thereafter.
- 13. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which ultimately may be released to waters of the State is prohibited unless specifically authorized elsewhere in this permit. This requirement is not applicable to products used for lawn and agricultural purposes or to the use of herbicides if used in accordance with labeled instructions and any applicable State permit.

The company shall notify the Department in writing no later than six (6) months prior to instituting use of any biocide or chemical (except chlorine as authorized elsewhere in this permit) used in the cooling systems or any other portion of the treatment system which may be toxic to aquatic life. Such notification shall include:

- a. Name and general composition of biocide or chemical
- b. Frequencies of use
- c. Quantities to be used
- d. Proposed effluent concentrations
- e. Acute and/or chronic toxicity data (laboratory reports shall be prepared according to Section 12 of EPA document no. EPA/600/4-90/027 entitled, <u>Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters for Freshwater and Marine Organisms</u>, or most current addition.)
- f. Product data sheet
- g. Product label
- h. The Department shall review the above information to determine if a major or minor permit revision is necessary. Discharge associated with the use of such biocide or chemical is not authorized without a permit revision by the Department. Permit revisions shall be processed in accordance with the requirements of Chapter 62-620, F.A.C.

## **II. SLUDGE MANAGEMENT REQUIREMENTS**

- 1. The permitee shall be responsible for proper treatment, management, use, and disposal of its sludge. [62-620.320(6)]
- 2. Decay vegetation and materials removed from intake screens and vegetation, sediments and sludge excavated from the settling basins, cooling tower basins and percolation basins must be properly stored onsite until they are disposed in accordance with requirements in chapter 62-701, F.A.C. and other applicable State and Federal requirements.

#### III. GROUND WATER REQUIREMENTS

There are no ground water monitoring requirements included in this permit.

#### IV. ADDITIONAL LAND APPLICATION REQUIREMENTS

There are no land application discharges at this facility.

#### V. CONSTRUCTION, OPERATION AND MAINTENANCE REQUIREMENTS

# A. General Operation and Maintenance Requirements

- 1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control. [62-620.320(6)]
- 2. The permitee shall maintain the following records and make them available for inspection on the site of the permitted facility.

# GOPHER TORTOISE PERMITTING GUIDELINES

Gopherus polyphemus

April 2008 (Revised November 2011)



FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION 620 South Meridian Street Tallahassee, Florida 32399-1600

# Insert: Permitting Guidelines Revisions History

#### September 2008

Authorized Gopher Tortoise Agent requirements were revised (pages 10 - 13). March 12, 2009

> Revisions to the following sections have been made: definition of "gopher tortoise habitat" added to the glossary; Table 1, Mitigation Contributions, clarified, options for payment revised to delay acceptance of letters of credit; Recipient Site Permits; Appendix 3; Appendix 4; 100% surveying (various sections); 10 or Fewer Burrows permits criteria addressed in new Appendix 11; clarification of permit duration criteria; revision to when proof of local government approval is required; Improved Methods for Baseline Vegetation Sampling and Follow-up Monitoring on Recipient Sites in Appendix 7; Revised Indigo Snake handling and relocation guidance consistent with the U.S. Fish & Wildlife Service.

April 14, 2009

Revisions to the following sections have been made: clarification on permitting phased projects in Permit Duration; clarification on when FWC can provide notice to the permittee to do an on-site inspection of a 100% survey prior capture activities, and what the procedure is if more burrows are discovered Burrow Surveys on Development Sites and in Appendix 4; clarification on when the 100-mile north/south relocation would be waived under Holding and Transport; clarification on permit duration for 5-year permits.

Upon approval of the revision to these guidelines, all guidelines will be implemented with the exception of Settlement permits. Guidelines in this document that address the issuance of Settlement permits (Permit for Authorized Relocation Post-Settlement of Law Enforcement Cases) are **shaded** because proposed revisions are still in draft form and full stakeholder input has not yet been solicited. Until the Settlement permit has been approved, the "after-the-fact" permit process continues to be in effect.

June 2010

Revisions to the following sections have been made: added clarification on impacts that occur within 25 feet of a burrow; added mitigation contributions for Temporary Exclusion permit; replaced "Settlement" permit with "Disturbed Site" permit; revised marking scheme; added "Authorized Agent" permit activity for "trainer;" included the option for the on-site relocation of tortoises whose burrows compromise existing structures; revised financial assurance requirements; added Appendix 13: "Criteria for Gopher Tortoise Recipient Sites to Qualify as Research Sites."

June 2011

Revised the monitoring and reporting requirements for long-term protected recipient sites; added new criteria for the relocation of gopher tortoises from public projects to contiguous public conservation lands; added pre-application opportunity for potential recipient sites; added new definitions in the glossary, updated Florida Rule numbers, and editorial and punctuation revisions on pages 11, 12, 16, 24, 25, 40, 41, 42, and 53.

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### November 2011

Added Appendix 12: "Guidelines for Restocking Public Conservation Lands;" revised criteria and mitigation associated with the Disturbed Site permit; updated FWC contact information; clarified that the \$200 mitigation only applies to a project one time; clarified about listing assistants to authorized agents on after action reports; editorial and punctuation revisions on pages ii, ix, 1, 11, 13, 16, 17, 21, 23 and 40.

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# GLOSSARY

- abandoned burrow burrow appears unused and dilapidated. The entrance is partially or completely collapsed, and the burrow is partially or completely filled with leaves or soil. Recent rains, or recent activity by livestock or humans, do not appear to be the primary reason for burrow collapse. There are no trails into the burrow that might indicate that a tortoise recently passed through the leaf litter or that a small tortoise is using a dilapidated, adult burrow.
- active burrow burrow is in good repair, has the classic half-moon shaped entrance, and appears to be in use by a tortoise. These burrows generally have tortoise tracks or plastron scrapes clearly visible on the burrow floor or on the mound. The burrow floor often contains loose soil caused by tortoise activity. The burrow mound is usually clear of vegetation, and it may contain recently excavated soil. For burrow surveys and tortoise density determination, active burrows are combined with inactive burrows to create the *potentially occupied* classification.
- asters plants in the sunflower family.
- **baseline density** the estimated density (tortoises per acre) of resident gopher tortoises on a recipient site before relocated tortoises are released.
- **belt transect** a long, thin plot of specific or variable length and width. Burrows are counted within each transect to provide an estimate of the number of burrows, and tortoises, on a given site.
- bucket trap a plastic bucket (generally five gallons or 19 liters, but may be larger or smaller depending on burrow size) that is sunk directly in front of a burrow opening and covered with paper or cloth and soil (for camouflage) to create a pitfall trap for a gopher tortoise. Bucket traps may capture tortoises leaving or entering a burrow.
- caliper a device used to measure straight-line distance between two points of an object or animal. In this case, a caliper with two long metal "jaws" is used to measure the length of the top (carapace) and bottom (plastron) shells of gopher tortoises; this caliper was designed to measure the diameter of trees and can be obtained from forestry supply companies.
- **canopy cover** layer of vegetation extending above head height, usually composed of tree branches.
- **carapace** the top (upper) shell of a tortoise.
- carrying capacity the maximum number of individuals of a species that an area can support, given the amount and quality of food, water, and cover.

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- clinical signs veterinary term referring to visible signs or symptoms of disease, illness, or lack of well-being in animals. Nasal discharge is a clinical sign that may be observed when tortoises have upper respiratory tract disease (URTD).
- commensal living in a relationship in which one animal derives food, refuge, or other benefits from another animal without hurting or helping it. The gopher frog, eastern indigo snake, Florida pine snake, and Florida mouse are listed commensal species of the gopher tortoise.
- compromised burrow gopher tortoise burrow that compromises the integrity or utility of an existing structure (e.g., under a propane tank), or the safety of the resident gopher tortoise (e.g., burrows in a grass parking lot, dirt driveway, etc.).
- conjunctiva the mucous membrane that covers the exposed portion of the eyeball and the inner surface of the eye.
- **conservation easement** a voluntary legal agreement between a landowner and a land trust or government agency that limits the type or amount of development on the landowner's property, thus protecting the land's conservation value while retaining private ownership.
- contiguous public conservation land relocation- one type of on-site relocation where a public project occurs within ½ mile to public conservation lands and where the native population of tortoises can remain intact. Public projects and public conservation lands are considered contiguous if two or more upland communities occur within a distance of 2,640 feet (1/2 mile), and there is no physical obstacle [e.g., paved road open to the public (i.e., greater than 2 lanes, curb and gutter or other physical barriers, or a speed limit >30mph), railroad bed, impenetrable fence, river, and lake] that prevents tortoise movement to other upland areas within the relocation/restocking site.
- **correction factor** also known as a burrow occupancy rate; the percentage of gopher tortoise burrows on a particular site that are occupied at a given time (tortoises generally use more than one burrow over time).
- densitometer -- a forestry device used to determine canopy cover for a given area.
- depth to the seasonal high water table (DWT) a soil suitability criterion referring to a saturated zone in the soil. Values provided in the Natural Resources Conservation Service (NRCS) website database are representative values (neither the highest nor lowest) for a particular soil type. The average value of the depth to the seasonal high water table range that is provided for each soil type in the NRCS database should be used when determining whether a soil type meets the acceptable or desirable soils criteria.

disturbed site (area)- a site where disturbance to the ground or vegetation has occurred.

donor site – the property, usually a development, from which tortoises are removed during relocations.

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enclosure – a temporary, specified area of a recipient site that is surrounded by approved fencing or hay/pine straw bales to initially contain relocated tortoises and to help them acclimate to their new surroundings. See "soft release."

endemic – exclusively native to a particular geographic area.

final stocking rate – the density of tortoises that can be relocated to a recipient site after considering the baseline density of the resident population. The final stocking rate is calculated by determining the maximum stocking rate (also known as the site evaluation stocking rate) and subtracting the baseline density.

filter fabric fencing - see "silt fencing."

- forage plant material, such as grasses, legumes, and other flowering plants, eaten by grazing animals.
- global positioning system (GPS) a satellite-based navigational system; the receiver provides latitude and longitude data for specific applications (in this case, burrow locations).
- gopher tortoise habitat gopher tortoises use a variety of generally upland habitats including, but not restricted to, sandhill, scrub, xeric hammock, mixed hardwood-pine, pine flatwoods, dry prairies, coastal grasslands and dunes, and disturbed habitats (e.g., old fields, pastures).
- ground cover herbaceous plants and the lowest shrubs occupying an area: a generic term used to describe the mat of plants found on the forest floor.

herbaceous -nonwoody plants, generally green and leafy in appearance and texture.

- impact for the purposes of these Permitting Guidelines, unless otherwise noted as a "positive impact," an impact includes any act or outcome as defined in Rule 68A-27.003 F.A.C., that may adversely affect any gopher tortoise or gopher tortoise burrow.
- inactive burrow burrow is in good repair, but does not show recent tortoise use. The lack of tortoise activity may be due to weather or season. These burrows have the classic half-moon shaped entrance, but the soil on the burrow floor is usually hard-packed, as is the burrow mound. There are no tortoise tracks or recently excavated soil, either on the burrow floor or on the mound. The burrow mound may have vegetation growing on it or be partially covered with fallen leaves. For burrow surveys and tortoise density determination, inactive burrows are combined with active burrows to create the *potentially occupied* classification.
- infrastructure structural elements that provide the framework supporting a development (e.g., roads, bridges, water resources, wastewater management, electric power transmission, and telecommunications).

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**legumes** – plants in the bean family.

- live trap a mesh wire cage trap, either homemade or commercially available (e.g., Havahart) that is set directly in front of a burrow to capture the resident tortoise.
- **local government approval** a permit, agreement, development order, or other authorization issued or granted in writing by the local city or county government having jurisdiction over the property.
- **long-term protection (habitat)** either privately or publicly owned lands placed under a perpetual (i.e., endless duration) conservation easement.
- mesic (habitat) having a moderate or well-balanced supply of moisture.
- midstory the middle layer, generally 3-9 feet in height, of trees and shrubs (in a multi-layered forest) shaded by taller trees.
- mitigation contribution compensation, usually either in the form of monetary contributions or protected habitat donations, to offset the ill effects of human-related land change (e.g., development) on gopher tortoise populations.
- **mycoplasma** an infectious agent (bacterium) that has been associated with upper respiratory tract disease in gopher tortoises.
- nares external openings of the nostrils.
- off-site recipient area an area that does not lie within the same boundaries (as defined in the legal description or as identified by the county parcel identification number) of the development area from which tortoises are to be removed and that may be under either the same or different ownership.
- on-site recipient area an area that is located within the same boundaries (as defined in the legal description or as identified by the county parcel identification number) of the development area from which tortoises are to be removed and that is under the same ownership as the development area or contiguous to public conservation lands.
- PIT tags passive integrated transponder (PIT) tags are small microchips (about the size of a grain of rice) that are injected into a tortoise's hind leg using a hand-held applicator. A hand-held scanner reads the tag's electromagnetic code and displays the tag's number. PIT tags provide an alternative method for permanently and uniquely marking individual tortoises.
- **plastron** the bottom (lower) shell of a tortoise.
- plat a map of land made by a surveyor showing boundary lines, buildings, and other improvements on the land.

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- **population** a group of individuals of the same species that occur in a defined area at the same time and regularly interact or interbreed.
- potential tortoise habitat those land cover types and soil associations that are known to support the life history requirements of the gopher tortoise. These habitats include, but are not limited to, sandhill, scrub, scrubby flatwoods, pine flatwoods, dry prairie, coastal strand, xeric hammock, mixed pine-hardwoods, and disturbed habitats on suitably drained soils.
- potentially occupied burrow this classification combines the active and inactive categories and, therefore, includes burrows with obvious signs of use and those with minimal or no obvious sign of use. A potentially occupied burrow is in good repair and has the classic half-moon shaped entrance. These burrows may have tortoise tracks or plastron scrapes clearly visible on the burrow floor or on the mound, or may have subtle or no tortoise sign. The lack of observable tortoise signs may be due to weather or season. The burrow floor may contain loose soil caused by tortoise activity, or it may be hard packed. The burrow mound may or may not have vegetation growing on it, and it may be partially covered by fallen leaves.
- prescribed fire a planned fire applied within a particular land area under the right weather conditions to accomplish specific, well-defined management objectives.
- **public conservation lands** publicly owned lands that are currently managed for conservation and are designated as conservation lands by Chapter 253.034, Florida Statutes, purchased for conservation purposes using funds from bonds or other monies dedicated specifically for conservation lands acquisition (e.g., Florida Forever, Preservation 2000, local bond initiatives, etc.), or afforded protection under federal law.
- public project a project on publicly owned land or land on which the government agency or entity has an easement and in which the public agency or entity is the applicant and subsequent permittee. Examples include public roads, schools, and government facilities.
- recipient site the property where relocated tortoises are released.
- recommendation preferred protocol or technique that permit applicants or permittees should follow, but that is not required (i.e., other viable methods are allowed). In the context of these guidelines, a recommendation is generally indicated by use of the verbs "should" or "may."

relocation – deliberately moving wild gopher tortoises.

requirement – action or protocol that must be followed before FWC will issue a permit. A requirement also includes actions that must be undertaken to avoid violating FWC permit conditions and rules. In the text of these guidelines, a requirement is generally indicated by use of the verbs "must" or "shall," or if an action is prohibited, by use of "do not."

- rescue relocation deliberately moving individuals or groups of tortoises to areas that are typically unprotected and may be relatively small, disturbed, or inadequately managed to support long-term population viability. Rescue relocation is conducted primarily to remove wild gopher tortoises from human-caused harm.
- responsible relocation deliberately moving wild gopher tortoises into protected, managed, suitable habitat where their future survival and population viability are very likely. Restocking to such sites where tortoise populations have been severely depleted is a form of responsible relocation; however, tortoises may also be responsibly relocated to sites with resident tortoises where the carrying capacity has been increased through habitat management to provide sufficient forage for additional tortoises.
- restocking deliberately moving wild gopher tortoises into protected, managed, suitable habitat where resident densities are extremely low and where the tortoises' future survival and long-term population viability are very likely.
- restocking site an area of protected, managed, suitable habitat where gopher tortoise populations have been severely depleted or eliminated.
- roller chopping a forestry method for preparing sites for planting pine trees; also used as a land management tool to reduce the height and density of understory vegetation. A bulldozer pulls a heavy cylindrical drum with cutting blades that chop vegetation.

scute – a bony external plate or scale, as on the shell of a tortoise.

- seropositive positive blood test indicating an immune response (exposure) to the bacteria that cause upper respiratory tract disease in gopher tortoises.
- shaded -- reducing or eliminating sunlight and excessive heat when using bucket traps or live traps or when transporting tortoises. Shade may be provided by man-made materials (e.g., plywood, plastic, cloth) or by vegetation (noting that vegetation dries with time and may fail to provide proper shade for more than a few days).
- short-term protection (habitat) either privately or publicly owned lands that have some enforceable protection commitment, but those commitments do not meet the definition of "long-term protection" or "public conservation lands."
- shrub a woody or herbaceous plant smaller in height than a tree and approximately 3 to 6 feet above the ground, often formed by a number of vertical or semi-upright branches or stems arising close to the ground.
- silt fencing (Belton Industries, #935) a durable type of silt fencing (36 in x 75 ft; preassembled, double-stapled, with oak stakes) that has been field-tested as an enclosure material for gopher tortoises. The manufacturer is Belton Industries, PO Box 127, Belton, SC; 800-845-8743; <u>www.beltonindustries.com/silt.html</u>. Distributors include

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Pallen Enterprises, Conyers, GA (770-922-1812) and Certified Slings, Ft. Myers, FL (239-334-1343).

- silt fencing (filter fabric) temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched. There are two types: 1) the silt fence is a temporary linear filter barrier constructed of synthetic filter fabric, posts, and, depending upon the strength of the fabric used, wire fence for support; 2) the filter barrier is constructed of stakes and burlap or synthetic filter fabric. These types of silt fencing are useful for temporary exclusion, but are generally not durable enough for six monthenclosures on recipient sites.
- silviculture the art and science of establishing and growing healthy, high-quality forests to meet human needs.
- site evaluation stocking rate (maximum stocking rate) the maximum allowable density on a particular recipient site, determined by evaluating habitat conditions such as canopy cover, soils, etc. Generally, maximum stocking rates range from two to four tortoises per acre.
- site fidelity remaining within a particular area.
- soft release (relocation) those releases where relocated animals are contained in a temporary enclosure at the recipient site for some period of time before being allowed to roam freely; this differs from hard releases where animals are turned loose without any period to acclimate to their new surroundings.
- Strategic Habitat Conservation Area an area not within existing publicly owned conservation lands that FWC has identified as needing protection to meet minimum conservation goals and provide greater security for rare native plants, animals, and habitats.
- take taking, attempting to take, pursuing, hunting, molesting, capturing, or killing any wildlife or freshwater fish, or their nests or eggs, by any means, whether or not such actions result in obtaining possession of such wildlife or freshwater fish or their nests or eggs.
- understory the lowest vegetative layer in a forest, consisting of woody and herbaceous growth less than 3 feet in height.
- unprotected site (relocation) lands that do not have any enforceable protection commitments or use restrictions that would prevent them from being modified and made unsuitable for tortoises.

upland (habitat) - high, generally dry lands that are not wetlands (water).

**upper respiratory tract disease (URTD)** – a disease that occurs in gopher tortoises, where infected individuals may show a discharge from the nasal passages or eyes, swelling of

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the eyelids or area around the eyes, or reddened third eyelid. These so-called clinical signs (i.e., symptoms) come and go over time.

viable population – a stable, self-sustaining population with a high likelihood (e.g., more than 95%) of surviving for a long-term period (e.g., 100 years).

xeric (habitat) - very dry, in this case due to soil factors.

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# I. INTRODUCTION

The following gopher tortoise (*Gopherus polyphemus*) permitting guidelines have been produced by the Florida Fish and Wildlife Conservation Commission (FWC), with input from stakeholders, to provide a comprehensive overview of FWC's gopher tortoise permitting system. The new gopher tortoise permitting system has been developed as one tool in accomplishing the goals and objectives set forth in FWC's *Gopher Tortoise Management Plan*, approved in September 2007.

The overall goal of the management plan is to restore and maintain secure, viable populations of gopher tortoises throughout the species' current range in Florida. Objectives under this goal include the following: 1) improving gopher tortoise carrying capacity on lands with existing or potential gopher tortoise habitat; 2) increasing the amount of protected gopher tortoise habitat; 3) restocking gopher tortoises to protected and managed areas; and 4) decreasing gopher tortoise mortality on lands proposed for development.

This permit system has been designed to help accomplish all four of these objectives by providing incentives to landowners to manage their habitat for gopher tortoises, tortoise commensals, and other native wildlife species; providing incentives to responsibly relocate and restock tortoises to protected, managed lands rather than unprotected sites; providing a new permitting system that does not allow entombment of tortoises; and providing a permitting system with regulation and enforcement sufficient to ensure compliance with FWC guidelines and rules.

The Gopher Tortoise Permitting Guidelines is a document that may be edited and updated as needed in the future. Proposed changes to these guidelines will be reviewed annually by an FWC standing team and a public stakeholder advisory group. All changes will require approval from the FWC Executive Director. The FWC Executive Director will also coordinate with the FWC Chairman to determine when changes to these guidelines are substantive and warrant full review by the FWC Commissioners.

These guidelines do not address technical details or aspects of the permit application process associated with the gopher tortoise permitting website. The online permitting system allows individuals to register and submit permit applications, electronically submit required mitigation, and receive official communications including permits from FWC. It also allows the public to search for and view permit applications and issued permits. Additional information, instructions and frequently asked questions on the online permitting system is available at MyFWC.com/GopherTortoise.

These guidelines include specific requirements and recommendations for various elements of the gopher tortoise permitting system. *Requirements* include actions or protocols that must be followed before FWC will issue a permit. They also include actions that must be undertaken to avoid violating FWC permit conditions and rules. The terms "shall" or "must" in this document denote guideline requirements. *Recommendations* include preferred protocols or techniques that applicants or permittees should follow, but that are not required (i.e., other viable methods are allowed). The terms "should" and "may" in this document denote guideline recommendations.

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These guidelines are intended to be a single source for all policy and protocols associated with FWC's gopher tortoise permitting system. As such, they are written primarily for an audience seeking such in-depth knowledge. Other publications and online materials have been developed to address the informational needs of groups that do not require an in-depth understanding of the entire system.

# **II. DETERMINING IF A PERMIT IS REQUIRED**

#### **Rules and Policies Protecting Tortoises and Their Burrows**

Rules protecting gopher tortoises and their burrows, and the Gopher Tortoise Enforcement Policy, are found in Appendix 1.

### Activities That Do Not Require a Permit

Agricultural, silvicultural, and wildlife management activities that impact gopher tortoises or gopher tortoise burrows do not require a permit if they are conducted in accordance with the Gopher Tortoise Enforcement Policy (Appendix 1), which is a part of these guidelines. These activities include tilling, planting, harvesting, prescribed burning, mowing, disking, roller chopping, and tree cutting. For additional guidance on activities that do not require a permit, refer to the *Gopher Tortoise Enforcement Policy* in Appendix 1.

Linear utility and highway right-of-way vegetation maintenance activities that may impact gopher tortoises or gopher tortoise burrows do not require a permit. These activities include mowing and tree cutting.

Routine yard and vegetation maintenance and landscaping activities that do not harm gopher tortoises or collapse tortoise burrows do not require a permit.

**Note:** Agricultural, silvicultural, wildlife management, and linear utility and highway right-ofway vegetation maintenance activities have not been shown to routinely result in significant gopher tortoise deaths (i.e., beyond the infrequent, accidental death of individual tortoises). Therefore, FWC will investigate reports of the death of significant numbers of tortoises to determine if these deaths resulted from activities that did not constitute bona fide agricultural, silvicultural, wildlife management, or linear utility and highway right-of-way vegetation maintenance activities. The FWC may pursue such activities as a violation of Rule 68A-27.003, Florida Administrative Code (F.A.C.), which is included in Appendix 1.

Note: Activities that are intended to prepare land for development are not considered bona fide agricultural, silvicultural, and wildlife management, linear utility, or highway right-of-way vegetation maintenance activities. A permit is required for land development activities (including site preparation for such activities) that result in impacts to gopher tortoises or their burrows. See Site Preparation Activities for Development below.

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A FWC permit is not required if development activity on a project site avoids impacts to tortoise burrows by 25 feet in all directions from the mouth of all burrows. Development activity must not harm gopher tortoises nor violate rules protecting them. Leaving a 50-foot diameter (25-foot radius) circle of habitat around each burrow (e.g., undisturbed "islands" or "crop circles") and developing the rest of a project site does not qualify and requires a permit to ensure that gopher tortoises are not harmed. Examples of other violations noted in the past by FWC include but are not limited to killing or injuring a tortoise, harassing a tortoise by blocking access to its burrow, and altering gopher tortoise habitat to such an extent that resident tortoises are taken (see Glossary and Site Preparation Activities for Development, below).

### Activities That Require a Permit

A permit is required for any activity not covered in the section above, that causes a take, harassment, molestation, damage, or destruction to gopher tortoises or their burrows (see Rule 68A-27.003, F.A.C., in Appendix 1.) Activities that can lead to rule violations include, but are not limited to, clearing, grading, paving, bulldozing, digging, building construction, and site preparation for development.

Examples of actions that are rule violations include the following:

- 1) killing or causing direct harm to gopher tortoises
- 2) collapsing gopher tortoise burrow entrances or other parts of tortoise burrows without a permit
- 3) blocking, covering, or filling in gopher tortoise burrow entrances without a permit
- 4) placing harmful substances or devices inside gopher tortoise burrows
- 5) penning or restricting gopher tortoises into small areas for more than 72 hours without a permit
- 6) altering gopher tortoise habitat to such an extent that resident tortoises are taken (see Glossary) by such activities
- 7) excluding tortoises from their burrows without a permit
- 8) relocating or possessing tortoises without a permit

#### Site Preparation Activities for Development

A permit is required for any site preparation activity conducted as a precursor to development that disturbs vegetation or the ground which impacts gopher tortoises or their burrows at the time of or as a result of development. To conduct these activities without a permit is a violation of Rule 68A-27.003, F.A.C. (see examples 1-8, above).

Site preparation activities such as hand trimming vegetation and other minor determinations of suitability of property for development do not require a permit. These low-impact activities are allowed without a permit if they do not harm gopher tortoise burrows, harm gopher tortoises, or disturb the ground or vegetation so that accurate tortoise burrow surveys or FWC site checks cannot be conducted. FWC law enforcement will respond to reports of take, harassment,

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molestation, damage, or destruction of gopher tortoises or their burrows and investigate any potential criminal violations.

On sites where tortoises are present and burrows (active or inactive) are present, most site preparation activities require a permit. These activities include building construction, bulldozing, paving, clearing, or grading. If work has started without the proper permit, work shall stop on-site until a relocation permit has been obtained and all gopher tortoises have been relocated. If work has begun before a relocation permit is issued or before gopher tortoise relocation is complete, all prior permits may be voided and a Disturbed Site permit may be required.

Permit applications must include tortoise surveys of the entire development, not just infrastructure components. Permits will not be issued solely for proposed infrastructure (e.g., roads and utilities) that are part of a larger common development plan, project, plat, or subdivision. Issued permits must address all burrows to be impacted on the entire project, development, plat, or subdivision site plan (the development footprint). For example, if the entire development footprint impacts more than 10 burrows, such sites will not be eligible (i.e., meet the criteria) for issuance of a 10 or Fewer Burrows permit, even if the infrastructure itself impacts 10 or fewer burrows.

Applicants submitting permit applications for projects with site plans that include lots or space for residential, industrial, institutional, commercial, or other development must consider all burrows within such areas to be impacted by the development footprint. Only those tortoises residing in burrows that are located within either designated preserves or other areas that will not be impacted by any activity associated with the ultimate build-out of the proposed development site do not have to be relocated. Large projects that are subdivided into development phases where each phase is approved by the local government under a separate development order may be permitted separately, but only one 10 or Fewer Burrows permit will be issued per multiphased project.

If site preparation activities occur before a gopher tortoise relocation permit is issued, then a Disturbed Site permit may be required. The Disturbed Site permit process may result in the denial of an existing permit application or revocation of an issued gopher tortoise relocation permit (see Section IV).

In disturbed site cases, an FWC law enforcement investigation will be conducted to determine if gopher tortoises or gopher tortoise burrows have been impacted. Regardless of the outcome of investigations, the permit application review process will not resume until any gopher tortoises potentially buried in disturbed portions of the project site are given adequate time to dig out (a minimum of 28 days, comparable to that required during tortoise trapping efforts; however, longer periods may be warranted during cold weather when tortoise movement is typically slower).

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# **III. PERMITTING GUIDELINES**

The FWC uses a multi-tiered approach to permitting actions involving gopher tortoises. These permits are divided into three main types: 1) Authorized Agent permits, which authorize persons to trap, transport, and release tortoises; 2) Site-specific relocation permits, which authorize trapping and relocation of tortoises either within the boundaries of the area being impacted (onsite) or from the area being impacted to a permitted recipient site (off-site); and 3) Recipient Site permits, which authorize the use of designated sites meeting specific criteria as recipient areas for tortoises. Emergency Take permits, Disturbed Site permits, and Burrow or Structure Protection permits are three additional permit types, only issued under unusual circumstances. The types of permits are illustrated by the flow chart in Appendix 2, FWC Gopher Tortoise Permitting System Process Map.

Entombment of tortoises is not allowed under the conditions of any permit, with the exception of Emergency Take permits. Emergency Take permits are available only in extreme circumstances where there is an immediate danger to public health and safety or in direct response to an official declaration of emergency by the Governor or local government authority. Local emergency situations that do not rise to the level of an official declaration should be handled by coordinating with FWC's Division of Law Enforcement and seeking assistance in determining steps that must be taken in order to avoid additional take or endangerment of gopher tortoises.

# **Mitigation Contributions**

A mitigation contribution is required for all relocation permits. A flat mitigation contribution from each applicant applies to the first 10 burrows (up to 5 tortoises for conservation permits) impacted on each project site. This flat mitigation contribution of \$200 is only applied one time for each project site. Additional mitigation for sites supporting more than 10 tortoise burrows is required. Mitigation contributions are assessed by determining the estimated number of tortoises impacted (the number of potentially occupied tortoise burrows to be impacted, divided by 2). A variable scale for additional contributions is based on the overall conservation value of the action being permitted and the estimated number of gopher tortoises being impacted by the project. Preferred conservation actions, such as responsibly relocating tortoises to long-term protected lands, require a lower contribution per tortoise than relocations to short-term protected or unprotected lands or relocations associated with Disturbed Site permits. All mitigation contributions support gopher tortoise conservation actions as specified in the FWC-approved Gopher Tortoise Management Plan.

Other costs may be incurred by applicants obtaining permits or conducting activities related to gopher tortoises. Examples of such costs include fees paid to consultants, fees paid for on-site preparation for gopher tortoise related activities, fees paid to owners of recipient areas, and fees associated with establishing conservation easements. These fees are not paid to FWC nor controlled by FWC.

All mitigation contributions must be submitted to FWC as specified in these guidelines. Gopher tortoise mitigation contributions for a 10 or Fewer Burrows permit, Authorized Agent permit, Recipient Site permit, Temporary Exclusion permit, Burrow or Structure Protection permit, or

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Disturbed Site permit must be submitted to FWC before the final permit will be issued. Mitigation contributions for Conservation permits representing 100% of the estimated total amount due will be submitted prior to issuance of the permit. Online submission of mitigation contributions is provided in order to expedite permit processing and issuance. FWC will continue to explore alternative methods of payment, such as letters of credit and performance bonds, in the future.

If the actual number of gopher tortoises relocated is less than the number estimated, a refund of any excess funds paid will be made to the permittee. Permittees seeking a refund must submit a refund request form to FWC within 60 days of the date that the final after action report is approved. Disturbed Site permits follow a different refund process (see Section IV). If an issued gopher tortoise relocation permit is used to attempt to capture a gopher tortoise(s) but no gopher tortoise is captured, the minimum mitigation amount required to obtain that type of relocation permit (e.g., \$200 for 10 or Fewer Burrows permits or Conservation permits, or \$100 for Temporary Exclusion permits with tortoises excluded for two months or less) will not be refunded to the permittee because the issued permit authorized both the capture of gopher tortoises, and the damage, collapse or covering of gopher tortoise burrow(s).

If the number of tortoises encountered during relocation exceeds the number permitted, then the permittee or agent must stop all attempts to capture any gopher tortoise in excess of the permitted number, and call the FWC Gopher Tortoise Permit Coordinator as soon as possible. The permittee or agent must submit an application to amend the relocation permit, submit the associated mitigation contribution for additional tortoises, and be in possession of the issued amended permit before attempting to capture or relocate any gopher tortoise in excess of the original number permitted.

Juvenile tortoises that are less than 130 mm [5 inches] carapace length must be included on the burrow surveys and permitted for relocation. However, refunds will be provided by the FWC for relocated juvenile tortoises that are less than 130 mm carapace length after the final after action report is submitted and approved, and a refund request form is submitted by the permittee or his/her agent. Gopher tortoise eggs and nests are not included when calculating the mitigation contribution. All eggs and juvenile tortoises must be relocated.

Emergency Take permit mitigation contributions will be handled on a case-by-case basis, in accordance with the facts and circumstances of each permit incident. In cases where the number of burrows impacted can be accurately determined because of pre-existing on-site surveys, mitigation contributions will be calculated by multiplying this number by 0.5. This adjusted number will be used to calculate mitigation contributions as prescribed in Table 1. In cases where the total number of burrows impacted cannot be accurately estimated from prior surveys, mitigation contributions will be based on actual documented burrow evidence. Such evidence may include, but is not limited to, exit holes from old burrows, partial remains of burrows, and the density of gopher tortoise burrows (per acre) that occur within surrounding areas that contain similar vegetation and soil characteristics.

When an Emergency Take permit includes requirements for trapping or excavating burrows within an area that has been disturbed by clearing, grading, disking or other ground disturbance

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activities, no refunds will be made if the actual number of tortoises relocated is less than the number estimated, since gopher tortoises may have left the area during the disturbance.

The FWC realizes that all sites are unique and that circumstances influencing gopher tortoise populations are dynamic. For that reason, the initial permitting mitigation contribution is based on estimates from site surveys and a general application of a statewide correction factor. Estimating the total amount due is accomplished by calculating the number of potentially occupied burrows (based on surveys of not less than 15% of the project site areas where potential gopher tortoise habitat is found), dividing by 2, and then applying the mitigation contribution amounts shown for the various permit types described in Table 1.

The mitigation contribution amounts will be adjusted over time to keep pace with inflation. Tying these changes to the Consumer Price Index will ensure mitigation contributions are adjusted relative to actual price increases or decreases. The FWC will use the "All Urban Consumers Price Index" (CPI-U), which is a reflection of the highest percentage of the population, and the CPI-U for the Southeast region. Information on the Consumer Price Index is available online at www.bls.gov/cpi.

In subsequent years, mitigation contributions will change by an amount equal to the annual CPI-U for the Southeast region, and will be based on changes during the CPU calendar year (January 1- December 31). However, the minimum threshold for mitigation is set at the contribution levels outlined in the original approved version of the Gopher Tortoise Permitting Guidelines (April 2008). Adjustments to the contribution amount will take effect on March 1 of each year because the CPI for the previous year is usually not available until mid-February. The contribution will be calculated based on the date that a completed application is received by FWC. Mitigation contribution amounts will be published at MyFWC.com/GopherTortoise and sent out to all permittees.

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PERMIT TYPE	MTEIGATION CONTRIBUTION
Authorized Agent	\$500 (one-time contribution)
Recipient Site	\$500 per site (one-time contribution)
10 or Fewer Burrows Tortoises are relocated on-site or off-site*	\$200
Conservation >10 burrows relocated to long-term protected area, to public conservation lands, or from public projects to contiguous public conservation land	\$200 for first group of 10 burrows (up to five gopher tortoises) \$300 each additional tortoise
Conservation >10 burrows relocated to short-term protected area	<ul><li>\$200 for first group of 10 burrows (up to five gopher tortoises)</li><li>\$3,000 each additional tortoise</li></ul>
Conservation Tortoises relocated to unprotected area	\$3,000 per tortoise
Temporary Exclusion Exclusions for longer than 6 months must apply for a Conservation permit	<ul> <li>\$100 per tortoise (exclusions &lt;2 months)</li> <li>\$200 per tortoise (exclusions 2 to 4 months)</li> <li>\$300 per tortoise (exclusions 4 to 6 months)</li> </ul>
Burrow or Structure Protection On-site relocation only	\$25 for up to 2 burrows
Emergency Take	\$4,000 per tortoise
Disturbed Site See Section IV. Disturbed Site Permits for more information	\$500 additional per tortoise added to the standard mitigation for 10 or Fewer Burrows permits and Temporary Exclusion permits (exclusions 4-6 months only)
	\$1,500 additional per tortoise added to the standard mitigation for a Conservation permit

 Table 1. Permit Type and Corresponding Mitigation Contribution

\*Gopher tortoises relocated off-site under a 10 or Fewer Burrows permit cannot be relocated to an unprotected recipient site.

#### **Documentation for Permit Applications and Issuance**

In accordance with the requirements of Rules 68A-27.007 and 68A-27.003 (F.A.C.), a permit for a gopher tortoise capture/relocation/release activity must be secured from FWC before initiating any relocation work. Required information for applications is outlined in Appendix 3, Informational Needs for Relocation Permit Applications and Recipient Site Permit Applications. Checklists are provided at <u>MyFWC.com/GopherTortsise</u> to assist applicants with the required information for each permit type.

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As of April 2009, most permits can be applied for online at <u>MyFWC.com/GopherTortoise</u>. The online permitting system allows individuals to register, submit permit applications, electronically submit required mitigation, and receive official communications including permits from FWC. Paper applications are also available, but applicants are encouraged to apply online to expedite the review process. Additional information, instructions and frequently asked questions regarding the online permitting system are available online at <u>MyFWC.com/GopherTortoise</u>.

Paper applications are available online at <u>MyFWC.com/GopherTortoise</u> or from the Gopher Tortoise Permit Coordinator, Florida Fish and Wildlife Conservation Commission, 620 South Meridian Street, Mail Station 2A, Tallahassee, FL 32399-1600; (850)921-1031; (850)488-5297 fax. For those opting to submit paper applications, the complete application should be submitted to the Gopher Tortoise Permit Coordinator at the above address at least 90 days prior to the time needed, although most applications will be processed in 45 days or less. Timely issuance of permits is dependent on receipt of required documentation.

Demonstration of need for a permit will require submittal of a development plan or proof of local government approval for the activity proposed (in the form of preliminary or final subdivision plat, or master planned unit development approval; Development of Regional Impact [DRI] development order; or authorization to commence clearing, grading, or construction activities). The actual capture and relocation authorized by the permit shall be conditioned upon the permittee submitting proof of local government approvals for clearing, grading or construction activities (if required at the local government level) to the FWC prior to commencing capture and relocation activities. Local governments may have requirements that an applicant demonstrate that FWC permits have been issued, or even that FWC permit requirements have been met, before issuing their final local government approval. The FWC will provide letters of intent or special conditions to permits, if necessary, that can be used to demonstrate agency concurrence with a proposed project. However, permits are not issued to move tortoises off a property where no construction activity is planned.

#### Permit Duration, Permit Posting, and Post-Relocation Reporting

The duration of each type of permit will be indicated on the permit. Authorized Agent permits are valid for a two-year period and may be renewed without additional payment in two-year increments. Recipient Site permits with long-term protection do not expire, but will be subject to reporting requirements within the special conditions. Permits for short-term protected recipient sites and unprotected recipient sites may be renewed every two years, but will require no additional mitigation contribution. Relocation permits for 10 or Fewer Burrows and Burrow or Structure Protection Permits will be valid for six months from the date of issuance and may be amended by the permittee to extend the permit duration for up to 6 months if relocation activities have not been completed. Conservation and Temporary Exclusion permits will be valid for either 12 months or 60 months and may be amended by the permittee to extend the permit duration for up to 12 months if relocation activities have not been completed. Emergency Take permits and Disturbed Site permits will be handled on a case-by-case basis, considering the circumstances of the development and the conditions present. Any request for permit renewal or amendments shall be submitted at least 45 days prior to the expiration date of the existing permit.

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Permit amendments are issued based on the permitting guidelines and specific permit conditions in effect at the time the complete application for a permit amendment is received by the FWC.

Phased projects, those projects with development phases based on geographic areas, may be permitted in one permit or in phases. Permits issued for individual phases will have conditions that specify the gopher tortoise conservation activities that must be conducted for those specifically permitted stages or phases of development. Refer to Appendix 3 for information needed for permit applications.

Either the original permit or a complete copy must be clearly posted at the affected site at all times while engaged in the permitted gopher tortoise relocation activities.

Within 30 days of release of the relocated tortoises, the permittee, or authorized agent if applicable, shall submit a report detailing the capture/relocation actions to FWC's Gopher Tortoise Permit Coordinator via FWC's permitting portal at <u>MyFWC.com/GopherTortoise</u>.

#### **Burrow Surveys on the Development Site**

A burrow survey covering a minimum of 15% of the potential gopher tortoise habitat to be impacted by development activities (including staging areas for heavy equipment) is required in order to apply for a relocation permit. These 15% surveys must be conducted no more than 90 days before an application is submitted to FWC. Burrow survey methods are outlined in Appendix 4, Methods for Burrow Surveys on Development (Donor) and Recipient Sites. Additional survey requirements for Disturbed Site permit applications are also listed in Appendix 4.

No more than 90 days prior to, and no fewer than 72 hours before (excluding weekends and holidays) commencing gopher tortoise capture and relocation activities, the authorized agent shall: 1) complete the 100% gopher tortoise survey of the donor site and burrow location map; and 2) deliver to the FWC the 100% survey and burrow location map. If FWC determines that an on-site survey inspection is necessary prior to commencing capture activities, FWC will provide notification to the permittee or authorized agent within 48 hours (excluding weekends and holidays) of receipt of the 100% survey and burrow location map.

All surveys completed by authorized agents are subject to field verification by FWC. If FWC determines from the on-site survey inspection that the number of gopher tortoise burrows on site causes the total to exceed the number authorized for capture and relocation under the existing gopher tortoise permit, the permittee must apply for an amendment and obtain a permit for the additional burrows from FWC before initiating any capture and relocation activities for the additional burrows.

Site preparation for development (such as land clearing) may commence on the project site, or for phases of the project site, for which gopher tortoise capture and relocation activities have been completed (see Section II for details.)

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## Capture, Handling, and Transport of Relocated Tortoises

**Capture Methods:** Tortoises must not be trapped, captured, or transported off project (donor) sites until local authorization for clearing, grading, or construction has been issued. Tortoises may be captured via bucket traps, live traps, hand capture outside burrows, and excavation by hand shovel or backhoe. To prevent impalement of tortoises during backhoe excavation, the backhoe bucket must have a flat plate rather than teeth (long prongs). Use of a pulling rod with a blunted tip to prevent injury to a tortoise will be allowed when the authorized gopher tortoise agent is permitted to utilize this method as authorized in the relocation permit. Only agents permitted to use this method of capture are authorized to capture tortoises using a modified pulling rod.

If bucket or live traps are used, the traps must be shaded, they must be checked at least once per day (preferably twice per day—once in the morning and once in the late afternoon), and they must remain in place for at least 28 consecutive days or until the resident tortoise is captured, whichever occurs first. In cases where traps are set during colder months in northern Florida (November – March) and no tortoise is captured after 28 consecutive days, burrows must be excavated to determine if they are occupied. Drainage holes must be drilled into the bottom and lower sides of bucket traps and must be sufficient in size and number to prevent rainwater from accumulating in the bucket. Bucket traps and live traps are not effective in capturing tortoises during cold weather, particularly in northern Florida (north of State Road 50), because tortoises may remain inactive for extended periods of time. Therefore, bucket traps are not recommended from November through March in northern Florida. In cases where traps are set and no tortoise is captured during winter months in northern Florida, burrows must be excavated to determine if they are occupied. If the 28-day trapping period has passed without a capture and property boundary constraints make excavation impossible, FWC should be contacted to discuss alternatives.

Burrow scoping is not an acceptable method of confirming vacancy or determining occupancy rates because not all potentially occupied burrows can be successfully scoped due to curves or obstructions. However, burrow scopes may be used to enhance capture success for tortoises and their commensals. Capturing a tortoise outside a burrow is not sufficient reason to assume the burrow is vacant. Although all burrows on the donor site must be flagged or otherwise marked, only potentially occupied burrows must be trapped or excavated (see Appendix 4).

All relocated tortoises must be individually marked, measured, and weighed (see exceptions in Appendix 11). Techniques for measuring shells and for uniquely marking individual tortoises (i.e., assigning them a permanent identification number) are provided in Appendix 5.

If gopher tortoise eggs are encountered, the following procedure should be followed:

1) place sand from around the eggs into a container;

2) remove soil from around the eggs carefully (eggs are fragile, please handle with care);

- 3) use a pencil to place a small "x" on top of each egg;
- 4) make an egg-sized depression with your finger in the sand in the container;

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5) place each egg in a depression with "x" facing up;

6) make note of approximate depth of nest in original burrow location, and:

7) at the recipient site, locate an existing burrow apron or other sandy area in an open, sunlit area and excavate to the approximate depth of original nest, place eggs "x" up in the new nest in approximately the same orientation as they were originally located, and mark the new nest with a ring of fencing or flagging.

Any injury or fatality associated with the capture or relocation of gopher tortoises must be reported to the FWC Gopher Tortoise Permit Coordinator within two days.

**Cold and hot weather handling:** During the colder months, tortoises shall only be relocated when the low temperature at the recipient site is forecasted by the National Weather Service (<u>www.nws.noaa.gov</u>) to be <u>above</u> 50° Fahrenheit for three consecutive days after release (including the day of relocation). This three-day window of milder overnight temperatures is required to allow the relocated tortoises to settle into the recipient site and to reduce the chance of cold-related stress or mortality.

Because most tortoise relocations occur during the warmer months, overheating is a more common concern. During summer months, releases should not be made during the hottest part of the day at sites where shade is limited. Heat stress on gopher tortoises being captured and transported for relocation can be reduced or eliminated by assuring that captured tortoises and those tortoises being transported for release are continually in shaded or climate controlled conditions.

Holding and Transport: Gopher tortoises must be held in shaded conditions and in individual containers that are large enough to allow the tortoise to turn around. To help prevent dehydration, especially during times of drought, tortoises should be soaked for 20-30 minutes in just enough water to cover the container bottom and to allow the tortoise to easily drink. Moist soil may be used to cover the bottom of the bin. It is appropriate to use soil from the burrow depths during backhoe excavation. Hay, straw, or shredded paper are other acceptable materials to place in the bin.

Gopher tortoises must not be held more than 72 hours after capture—and preferably not more than 24 hours. Tortoises should be transported within covered, well-ventilated areas of vehicles (not in open trucks) and should be kept at moderate temperatures (i.e., 70-85° Fahrenheit).

Recipient areas may be situated any distance east or west of the donor site, but no more than 100 miles north or south of the donor site unless no such recipient site is available. Some recipient sites conducting research can accept tortoises from any location in the state and may be exempt from the 100-mile limit.

Relocated gopher tortoises should be released on the recipient site near existing abandoned burrows or excavated starter burrows. Starter burrows should be excavated to approximately two feet in length at an approximate 45° angle to the ground.

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Health Considerations (including testing for mycoplasmal upper respiratory tract disease [URTD] and accommodation of symptomatic/seropositive tortoises): Most health variables are poorly known for wild gopher tortoises, and even veterinarians with advanced training in animal health can have difficulty detecting subtle clues that a tortoise is ill. Authorized agents may refer to Appendix 6 for detailed outlines of cursory health evaluations, clinical signs and symptoms, and a simple disinfection protocol to help prevent spread of pathogens. Although detailed health exams are not required, authorized agents should observe each tortoise for obvious clinical signs such as nasal discharge. Hands and equipment should be disinfected between handling tortoises within a donor site, but all equipment, particularly bins and bucket traps, must be disinfected between uses on different donor sites. Blood tests to detect exposure to the pathogen that causes mycoplasmal URTD are no longer mandated. However, in cases where recipient site owners require mycoplasmal URTD testing before relocation, Appendix 6 contains information on collection and handling of samples. Appendix 6 also provides guidance for the accommodation of symptomatic tortoises (i.e., those individuals that show signs of illness, especially respiratory disease) and those that test positive for mycoplasmal URTD or other diseases.

### **IV. TYPES OF PERMITS**

#### Authorized Gopher Tortoise Agent Permit

Note: Authorized agents included under this type of permit are not authorized agents of FWC, but rather individuals authorized to handle gopher tortoises. These permits are not issued for scientific collection or research on gopher tortoises.

This permit authorizes the permittee, referred to as an authorized agent, to undertake those activities specified by the permit, including surveying, trapping, marking, transporting, relocating tortoises and tortoise commensals (e.g., gopher frog, pine snake, Florida mouse). The specific activities that an authorized agent is granted permission to perform will be listed on the permit. Authorized Agent permits also allow assistants to work under the authorized agent's supervision if these assistants are registered with the FWC. The permit must be carried at all times by the agent and assistants when conducting permit-related activities. Authorized Agent permits will not allow relocation of tortoises except when accompanied by a 10 or Fewer Burrows permit, a Conservation permit, a Temporary Exclusion permit, a Burrow or Structure Protection permit, or a Disturbed Site permit for a specific project.

Authorized agents must be well-qualified to perform the gopher tortoise conservation actions for which they are requesting permission. Agents will likely be the first point of contact for citizens when they are advised that gopher tortoises are protected. Agents must accurately represent FWC policies, guidelines, and rules to their clients and to the general public. As a benefit of receiving this permit, agents will have access to a streamlined online permitting process for certain gopher tortoise permit approvals.

This permit is conditional so that it can be withdrawn, suspended, revoked, or not renewed for just cause, as determined by FWC. In cases where agents or their assistants violate FWC rules, policies, or guidelines concerning gopher tortoises; engage in unethical or illegal behavior;

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falsify gopher tortoise permit applications or monitoring reports; or violate conditions of any gopher tortoise permit, the agent permit may be immediately suspended pending an investigation. Substantiated violations will result in appropriate action, up to and including revocation, at FWC's discretion. Any person whose Authorized Agent permit is revoked will be ineligible for any gopher tortoise related permits for some period of time, depending on the severity of the violation.

#### **Requirements for Authorized Gopher Tortoise Agents**

Individual people may submit an application to FWC in order to be authorized to perform different activities related to gopher tortoise conservation. Not all agents will have the interest and the required expertise to perform all activities listed below. Each agent permit will clearly state what the agent is allowed to do and will be conditioned accordingly. Agent permits are authorizations to the agents and the assistants under their supervision to conduct the activities specified. The agent permits do not allow capture, possession, or transport of gopher tortoises unless a relocation permit specific to the development project or activity impacting gopher tortoises or their burrows has also been issued. All experience submitted in support of the application for an Authorized Gopher Tortoise Agent permit must have been from actions conducted in compliance with the FWC gopher tortoise permitting guidelines and standards.

# Gopher tortoise surveys:

Applicant must have completed either 1) at least 120 hours conducting gopher tortoise surveys over the past year, or 2) a cumulative total of 480 hours conducting gopher tortoise surveys.

Completion of an FWC-approved training course module in gopher tortoise surveying may be substituted for the experience requirements.

# Gopher tortoise capture using bucket trapping or live trapping or hand shovel excavation:

Applicant must have captured, with no gopher tortoise injuries or mortality, either: 1) an average of 10 gopher tortoises per year by a single method over a four-year period, or 2) a cumulative total of 40 gopher tortoises captured by a single method. Applicants are to list experience for each method separately in the agent permit application, as applicable.

Completion of an FWC-approved training course module in gopher tortoise capture methods may be substituted for the experience requirements.

# Gopher tortoise capture using a modified pulling rod:

The applicant must have captured, with no gopher tortoise injuries or mortality, an average of 10 gopher tortoises per year over a four-year period by safely using a modified pulling rod. Applicants must include references to the permits under which the claimed experience was earned.

Certification of additional agents beyond those who meet these criteria will be considered only after further evaluation of this technique by FWC in April 2010.

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Note: Not all tortoises can be captured by pulling. Therefore, pulling cannot be used as a method for verifying that a burrow is unoccupied. Pulling may be used only in combination with trapping or backhoe/hand excavation to assure that every tortoise is relocated from a designated donor site.

Completion of a training course will not be accepted in lieu of the experience requirements listed.

#### Transport, marking, and release of gopher tortoises:

The applicant must have completed, with no gopher tortoise injuries or mortality, either: 1) an average of 10 gopher tortoises per year transported, marked, and released over a four-year period, or 2) a cumulative total of 40 gopher tortoises transported, marked, and released. These activities are considered together as one skill in the agent permit application.

Completion of an FWC-approved training course module in gopher tortoise transport, marking, and release methods may be substituted for the experience requirements.

#### Collection of blood samples:

The applicant must have completed, under the direct supervision of a qualified veterinarian or other appropriately authorized person, the successful collection of 10 blood samples from gopher tortoises.

Completion of a training course will not be accepted in lieu of the experience listed.

# Supervision of gopher tortoise burrow excavations using mechanical equipment:

The applicant must demonstrate with no gopher tortoise injuries or mortality, either: 1) on-site experience of supervising at least 50 gopher tortoise burrow excavations, with the successful extraction of at least 20 gopher tortoises (include references to the permits under which those occurred), or 2) on-site experience under the supervision of another Authorized Gopher Tortoise Agent who was directing backhoe operators in the excavation of at least 50 gopher tortoise burrows, with the successful extraction of at least 20 gopher tortoises, with the applicant actively participating in the recovery of gopher tortoises from the excavated burrows (include references to the permits under which those occurred).

Completion of an FWC-approved training course module in this activity, combined with experience directing backhoe excavation of 30 gopher tortoise burrows with successful extraction of at least 12 gopher tortoises, may be substituted for the full experience requirements above. Burrows mechanically excavated during the approved course in which the applicant actively directed excavation efforts without instructor input can count toward the excavation experience requirement; however, excavation must be conducted under the direct on-site supervision of an Authorized Gopher Tortoise Agent permitted in this technique.

It is the agent's responsibility to select operators of mechanical excavating equipment that are appropriately experienced and to direct their activity in a way that minimizes threats to gopher tortoises, commensal species, and persons assisting with the excavation. The authorized agent must be on-site at all times while mechanical excavation is being performed.

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#### Authorization to train:

Authorized gopher tortoise agents may be authorized to train others in the activities and techniques associated with trapping, handling, and relocating tortoises with completion of a FWC-approved training course. Applicants must specify which courses and sections they will be teaching and provide a letter from the approved training entity verifying employment or agreement to train.

# Application Criteria

All applications for the Authorized Agent permit must be from an individual, and the appropriate mitigation contribution as established in these guidelines must be paid before issuance of the permit. Applicants for this permit must provide standard contact information, satisfactory proof of knowledge, and specific gopher tortoise related experience in support of each of the activities they are requesting a permit to conduct. Applicants must list permit numbers under which experience was obtained for each skill listed in their application. For surveys, the applicant may list properties (and the associated gopher tortoise habitat acreages) surveyed, purpose of surveys, and documentation of completion and submitted of survey results where experience was acquired but no FWC permit applications were submitted, instead of listing permit numbers (since permits are not always obtained after surveying efforts). Applicants must swear and affirm that they have committed no wildlife violations in Florida, the information submitted in the application and supporting documents is complete and accurate, any false statement may result in criminal penalties, and agree to abide by all applicable state, federal, and local laws.

Professional certification by any industry body or trade group established for this purpose (gopher tortoise agent authorizations) in the future and approved by FWC may also be provided as supplementary documentation of knowledge and experience.

**Note:** Approval of courses for certification of gopher tortoise agents shall be at the discretion of the FWC Executive Director or his delegate.

#### Grounds for Suspension, Revocation or Nonrenewal of Agent Permit

Agents are responsible at all times for their own actions and for the actions of any other person assisting them with their permitted activities. The following will be considered by FWC as grounds for suspension, revocation, or nonrenewal of the permit issued to an agent:

- violations of gopher tortoise related rules, guidelines, or permit conditions
- surveys not conducted in adherence with guidelines
- significant numbers of burrows missed on surveys
- falsification of data submitted to FWC
- failure to appropriately supervise and direct persons assisting them

# Assistants to Authorized Agents

An authorized agent may be assisted by additional persons. These assistants will be under the

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supervision of the authorized agent and must adhere to all rules, guidelines, and permit conditions when conducting activities relating to gopher tortoises. They must carry a letter from the agent designating them as an assistant and a copy of the authorized agent's permit with them at all times while engaged in activities related to the permit. Such assistants must be directly supervised on-site by the authorized agent during blood collection and/or mechanical excavation of burrows, or they themselves must be an authorized gopher tortoise agent permitted to conduct these activities. In order for an assistant to gain credit for experience to meet qualification requirements for an Authorized Agent permit, the assistant must be listed in the relocation permit after action report within the online permit system. Assistants are not authorized to conduct any gopher tortoise related actions without approval of the authorized agent.

## **Relocation Permits for Properties with 10 or Fewer Burrows**

This type of permit is available when 10 or fewer burrows (and the number of tortoises occupying those burrows) will be impacted on a development site. Application requirements, recipient site criteria, and tortoise handling procedures differ somewhat for this permit type (see Appendix 11.). In cases of phased developments, this permit may be obtained only once for any development on a single identified parcel or within a project under a common plan of development, platting, or subdivision/project name, whichever is largest. As part of the 10 or Fewer Burrows permit application process, the permit applicant must complete the required e-Learning (available online at <u>MyFWC.com/GopherTortoise</u>) or the approved equivalent written training, if the applicant is not an authorized gopher tortoise agent.

Most typical activities associated with residential lawn and landscape maintenance do not require a permit, provided they do not collapse gopher tortoise burrows or harm gopher tortoises. Activities that do require a permit are listed in Section II, Determining If a Permit Is Required. Contacting an authorized agent or FWC before implementing any construction or major habitat modifications is advised.

Consultants who are not Authorized Gopher Tortoise Agents may apply on behalf of property owners for 10 or Fewer Burrows permits when all tortoises will be relocated on-site. The consultant must complete a Registered Agent profile within the online permitting system and complete the e-Learning curriculum. Once submitted, this automatically issued status allows a Registered Agent to apply on behalf of the property owner for permits that do not otherwise require the use of an Authorized Gopher Tortoise Agent. Only property owners can be listed as permittees. Relocation activities for Registered Agents are limited to on-site relocation only using bucket trapping, hand shovel excavation, and live trapping to capture the gopher tortoises. The Registered Agent is not a permit, nor does it provide any authorizations not included in a separately issued 10 or Fewer Burrows permit. (Authorized Gopher Tortoise Agents may conduct activities specified by their permit and do not need to apply to become Registered Agents.)

#### 10 or Fewer Burrows Permit with On-Site Relocation

This permit authorizes landowners or other individuals who have completed FWC online e-Learning to capture gopher tortoises (via bucket trapping, hand-shovel excavation, or live

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trapping) and to relocate tortoises to an on-site location within the property boundaries of the development specified in the application. [Note: Only an authorized agent permitted to supervise burrow excavations may capture or attempt to capture gopher tortoises using a backhoe.] On-site recipient area criteria can be found in Appendix 11. Landowners may obtain the assistance of an authorized gopher tortoise agent for on-site relocations (as described in *Authorized Gopher Tortoise Agent* above).

Release of tortoises must be accomplished in such a way as to preclude tortoises from returning to their burrows. This permit type requires the temporary installation of filter fabric (silt fencing) or other comparable fencing (buried at least eight inches deep) along the outer edge of the construction right-of-way to block tortoise re-entry into the area of disturbance on the project site during construction activities. This temporary exclusion fencing must be removed following completion of construction activities. Penning is allowed only under this permit type, and only under specified circumstances (see Appendix 11).

#### 10 or Fewer Burrows Permit with Off-Site Relocation

This permit authorizes gopher tortoises to be relocated off the development property to a permitted recipient area (a long-term protected site or a short-term protected site). An authorized agent must perform this relocation on behalf of the permittee. Authorized agents must have their own permit from FWC for working with gopher tortoises and may assist the landowner or developer in obtaining all permit approvals for this type of action.

#### **Conservation Permit**

Conservation permits for relocation of tortoises on-site or off-site will be issued when more than 10 burrows will be impacted on a development site and for subsequent activity on properties undergoing development of phased projects when a 10 or Fewer Burrows permit has been previously issued.

This permit authorizes gopher tortoises to be relocated either on-site or off-site of the development property. The permittee must have an authorized gopher tortoise agent perform this relocation. Authorized agents must have their own permit from FWC that authorizes them to conduct the activities required to relocate the gopher tortoises, and they may assist the landowner or developer in obtaining all permit approvals for this type of action.

One of the four objectives of the *Gopher Tortoise Management Plan* is to increase the acres of permanently protected gopher tortoise habitat by providing incentives to landowners who protect habitat under perpetual conservation easements. These protected acres of habitat provide a net conservation benefit and assurance for long term protection and management of the species. Restocking lands where populations have been depleted is another important objective which will also help to reach the Plan's goal. Therefore, mitigation contributions for gopher tortoise relocation are scaled based on the length of assurance for protection and management of the species at recipient sites.

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The mitigation contribution for Conservation permits is determined by the level and duration of habitat protection and management provided by the recipient site to sustain gopher tortoises. Conservation permits issued for gopher tortoises relocated to a long-term protected recipient site or from public projects to contiguous public conservation lands will require a \$200 mitigation contribution for the first group of ten burrows (up to five tortoises) and a \$300 mitigation contribution per tortoise thereafter. If the tortoises are being moved to a short-term recipient site, a \$200 mitigation contribution will be required for the first group of ten burrows (up to five tortoises), and a \$3,000 mitigation contribution will be required per tortoise thereafter. Gopher tortoises that are relocated to an unprotected recipient site will require a \$3,000 mitigation contribution per tortoise (see Table 1).

Conservation permits that involve on-site relocation to undeveloped areas that provide suitable tortoise habitat but that are not protected or do not meet the size criteria for a permitted recipient site will require a \$3,000 mitigation contribution for each tortoise. Final stocking density is limited to of two per acre (including tortoises already on-site) within the designated recipient area. On-site relocation to an area that provides habitat protection equivalent to the requirements for a short-term protected recipient site will require \$200 for the first 5 tortoises and an additional \$3000 for each tortoise relocated on site.

On-site relocation may be authorized to areas that meet the criteria for a long-term protected recipient site, or when tortoises are relocated from public projects to contiguous public conservation lands. A separate long-term protected recipient site permit must be obtained before gopher tortoises are relocated to the on-site area (see Recipient Site Permits below). However, if gopher tortoises are relocated from public projects to contiguous public conservation lands, the recipient site must meet the criteria specified below and be authorized as an on-site recipient site unit under the issued Conservation permit. Mitigation contributions for tortoises relocated to these on-site areas under this permit option qualify for the lower mitigation amount included in Table 1.

#### Relocating gopher tortoises from public projects to contiguous public conservation lands

The FWC recognizes that keeping tortoises within their native population is an important measure in conserving tortoises. This type of on-site relocation permit option encourages contiguous relocation within public lands by reducing mitigation costs and streamlining the process, thereby facilitating enhanced conservation for tortoises. Under this permit option, gopher tortoises can be retained within their native population instead of being moved off-site or to an on-site short-term or unprotected recipient site.

The intent of this permit option to relocate gopher tortoises from public projects to contiguous public conservation lands is to:

- 1) Encourage relocation of gopher tortoises from public project sites that are contiguous to public conservation lands;
- 2) Maintain local gopher tortoise populations, and their genetic and breeding integrity;
- 3) Minimize stress and other negative impacts to individual gopher tortoises;
- 4) Minimize the potential for disease transmission to new areas; and

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5) Align with and complement existing gopher tortoise relocation options.

The key component to achieving this intent is to limit contiguous relocations to public conservation lands that gopher tortoises could reasonably access naturally and on their own.

This relocation option is intended for public projects where the donor site is contiguous to public conservation lands (see definition) and there is no physical obstacle [e.g., paved road open to the public (i.e., greater than 2 lanes, curb and gutter or other physical barriers, or a speed limit >30mph), railroad bed, impenetrable fence, river, and lake] that would prevent tortoise movement to the recipient site or other upland areas within the relocation/restocking site.

Donor and recipient site parcels or lands that are owned by the same public entity but not part of the contiguous landscape, or donor sites located more than one half mile from the temporary enclosure area within the designated recipient site, will not be considered contiguous under this option. However, this permit option can be used if the contiguous habitat or land is owned by more than one entity, provided that a letter of acceptance is submitted from the recipient site landowner. If linear right-of-way project sites do not meet the definition of contiguous, or do meet the definition of contiguous but donor site tortoise burrow(s) are located more than one-half mile from the temporary enclosure within the designated recipient site, a Conservation permit for off-site relocation must be obtained.

Projects must meet the following criteria for relocating gopher tortoises from public projects to contiguous public conservation lands:

- A. To receive a FWC Conservation permit for relocation to contiguous public conservations lands, donor sites must meet the following criteria.
  - The donor site must be contiguous to the public conservation land recipient site.
  - If the recipient site is contiguous but owned by a separate public entity, signed permission from the recipient site landowner must be submitted.
  - Mitigation for tortoises relocated under this Conservation permit option is \$200 for the first group of 10 burrows (up to 5 tortoises) and \$300 for each additional tortoise.
  - The location of the recipient site temporary enclosure must not be located more than one-half mile from the burrow(s) on the donor site.
- B. The recipient site must be contiguous to the donor site and meet the following criteria.
  - Recipient sites must be designated as public conservation lands (see definition) or public lands protected by a minimum 50-year conservation easement (with FWC included as a grantee). For lands where title is held by the State of Florida, the land lease shall be amended to include a recipient site management commitment, and be renewed so the lease is valid for at least 50 years.
  - The public conservation lands recipient site must be a minimum of 40 acres and meet the *acceptable* or *desirable* criteria outlined in Table 2 of these guidelines. Smaller sites in highly developed counties, particularly in southern Florida, will be evaluated on a case-by-case basis, and will be allowed if they are instrumental in retaining the local tortoise resource and can be appropriately managed to perpetuate the relocated population.

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- A habitat management plan that includes recipient site requirements that has been approved by the FWC (or a management agreement between the managing agency and FWC), and proof of financial assurance in the form of a general appropriation or allocation approved by a public governing body for management, or equal to that of a long-term protected recipient site (see Appendix 3) must be submitted.
- Monitoring reports that conform to the monitoring requirements described in Appendix 7 of the Gopher Tortoise Permitting Guidelines shall be submitted at the intervals specified for either the duration required for a long-term protected recipient site or 50 years, whichever is shorter.
- The location of the recipient site temporary enclosure must not be located more than one-half mile from the tortoise burrow(s) on the donor site.
- A contiguous recipient site may be utilized for more than one Conservation permit that meets the criteria for this permit option, but the number of tortoises relocated to the site shall not exceed the final site evaluation stocking density.
- The recipient site maximum allowable gopher tortoise density (see Appendix 4) shall not exceed 50% of the maximum stocking density.

Exceptions to some of these criteria may be considered by FWC if the proposed contiguous relocation meets most, but possibly not every requirement outlined in the above criteria, and alternative mitigation activities are also implemented. Examples of alternative mitigation activities that may be considered include: temporarily enclosing tortoises (soft release) for 12 months instead of the minimum of 6 months; permanent fencing that prevents tortoises from entering roadways to reduce the risk of mortality; reduced speed limits adjacent to recipient sites and installation of wildlife crossing signs; or, a combination of these examples or other proposed alternatives that are consistent with and support the intent of these guidelines.

Note: Other options for on-site relocation (short-term or unprotected site) are available if a property does not meet the criteria outlined above for this "contiguous public conservation lands" option.

FWC will review this permit option in two years (from the date of approval) to evaluate if it is still needed and is helping to achieve the management plan goals for the gopher tortoise.

#### **Recipient Site Permits**

#### Criteria for Relocation of Gopher Tortoises to Recipient Sites

The overall conservation goal of the *Gopher Tortoise Management Plan* is "to restore and maintain secure, viable populations throughout the species' current range in Florida." Property owners play a significant role in helping Florida achieve this goal by providing the highest level of security for the gopher tortoise and its habitat on permitted recipient sites. Elements that are integral to meeting this objective include appropriate habitat management, population monitoring, legal protection, and long-term financial assurance provided by the landowner. Not all recipient sites afford relocated gopher tortoises with the same level of protection, however

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some sites do provide conservation value by restocking tortoises to managed lands where populations have been depleted, furthering research efforts, preventing the loss of tortoises on development sites, helping to retain local or regional tortoise resources and potentially contributing to the habitat preservation objective if such sites receive long-term protection in the future.

The Gopher Tortoise Management Plan contains a series of measurable objectives and conservation actions which include restocking gopher tortoises to protected, managed, suitable habitats where they no longer occur or where densities are low. A team of public conservation land managers has developed guidance regarding the restocking of gopher tortoises on public conservation lands (see Appendix 12). This team includes representatives from the Florida Department of Environmental Protection Florida Park Service, Florida Department of Agriculture and Consumer Services Florida Forest Service, the five Water Management Districts, Florida Communities Trust, and Florida Fish and Wildlife Conservation Commission. Likewise, some of the future research goals outlined in the Gopher Tortoise Management Plan may require the use of sites that receive displaced tortoises to carry out research projects and consequently be designation of research recipient sites. The criteria for research recipient sites are outlined in Appendix 13 and are intended to provide further clarity as to how the agency will implement conservation actions specified in the Plan.

To receive a FWC recipient site permit, candidate properties must meet site suitability criteria for size, soil, and habitat. Site suitability criteria vary according to the level of conservation value provided by the recipient site.

Landowners who meet the basic criteria in these guidelines are encouraged to contact the FWC Gopher Tortoise Permit Coordinator to schedule a pre-application site visit. A preliminary site visit allows FWC staff to evaluate the suitability of the habitat on proposed site. Staff may provide information on habitat management assistance or other measures that may be undertaken prior to completing an application for a FWC recipient site permit. The pre-application site visit can help identify and address potential issues in advance, so the permit application can be processed more efficiently.

- A. Conservation Easements or Other Protection: The conservation value of a permitted project and the required mitigation contribution is determined by the level of protection afforded to the relocated gopher tortoise at the recipient site. Four levels of conservation have been defined:
  - Long-term Protected Recipient Sites: These privately or publicly owned recipient sites must be protected by a perpetual easement that conforms to the standard format available from FWC (see Appendix 8). Conservation easements that were previously granted by landowners to other regulatory, governmental, or conservation entities may be acceptable to FWC if their conditions and restrictions provide habitat protection and management requirements for gopher tortoises and their habitats that are comparable to those contained within FWC's standard easement. However, those easements would need to be modified to designate FWC as a co-grantee.
  - Recipient Sites for Restocking Public Conservation Lands: These recipient sites consist of publicly owned lands that are currently managed for conservation and are

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either designated as conservation lands by Chapter 253.034, Florida Statutes; purchased for conservation purposes using funds from bonds or other monies dedicated specifically for conservation lands acquisition (e.g., Florida Forever, Preservation 2000, local bond initiatives, etc.); or afforded protection under federal law. These publicly owned lands must provide suitable gopher tortoise habitat and must be actively managed under an approved habitat management plan. The land managing agency and FWC must establish either a Memorandum of Understanding (MOU) or an easement that conforms to the standard format available from FWC. Additionally, existing land leases, covenants, and management plans may need to be amended to provide adequate assurance of management. See Appendix 12 for specific details and requirements for restocking public lands.

- Short-term Protected Recipient Sites: These recipient sites have some enforceable protection commitment, but those commitments do not meet the definition of "long-term."
- Unprotected Recipient Sites: These recipient sites provide relocated gopher tortoises protection for at least two years.
- B. Size: Perimeter boundaries of recipient sites should ideally be configured in the form of a block, circle, or similar shape. Uplands are considered contiguous if two or more upland communities occur within a distance of 1,000 feet, and there is no physical obstacle (e.g., paved road open to the public, railroad bed, impenetrable fence, river, lake) to prevent tortoise movement to other upland areas within the recipient site. For administrative purposes, FWC will evaluate and authorize use of up to 1,000 acre portions of recipient sites in phases; however, only a one-time mitigation contribution of \$500 will be required for permitting a recipient site.
  - Long-term Protected Recipient Sites: Recipient sites must contain a minimum of 40 acres of contiguous suitable upland tortoise habitat that meet the criteria for soil and vegetation. Smaller sites in highly developed counties, particularly in southern Florida, will be evaluated on a case-by-case basis, and will be allowed if they are instrumental in retaining the local tortoise resource and can be appropriately managed to perpetuate the relocated population. Sites containing greater than 200 acres of contiguous suitable upland habitat will satisfy the size threshold for *Desirable* criteria and may be eligible for an additional 0.5 tortoise per acre increase in the site evaluation maximum allowable tortoise density (see below).
  - Recipient Sites for Restocking Public Conservation Lands: Recipient sites must contain a minimum of 40 acres of contiguous suitable upland tortoise habitat that meet the criteria for soil and vegetation. Smaller sites in highly developed counties, particularly in southern Florida, will be evaluated on a case-by-case basis, and will be allowed if they are instrumental in retaining the local tortoise resource and can be appropriately managed to perpetuate the relocated population. Sites containing greater than 200 acres of contiguous suitable upland habitat will satisfy the size threshold for *Desirable* criteria and may be eligible for a 0.5 tortoise per acre increase in the site evaluation maximum allowable tortoise density.
  - Short-term Protected Recipient Sites: Sites must contain a minimum of 25 acres of contiguous suitable upland tortoise habitat that meet the criteria for soil and vegetation.

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- Unprotected Recipient Sites: Sites must contain a minimum of 25 acres of contiguous suitable upland tortoise habitat that meet the criteria for soil and vegetation.
- C. Soils: Soils that meet *acceptable* criteria are moderately well-drained to excessively drained, with an average depth to the seasonal high water table (DWT) value of 45 centimeters (1.5 feet) or greater. For sites in flatwoods, land cover maps should be overlain on soils maps to help differentiate hydric areas from more mesic or xeric areas; site visits by FWC may also be required. Poorly drained soils with an average depth to the seasonal high water table (DWT) greater than 31 centimeters (one foot) may meet the *Acceptable* criteria, provided that the proposed site contains augmentation features or is drained by ditches, etc. In these select cases, there must be evidence of past or current use by tortoises. Additionally, stocking densities cannot exceed two per acre on these soil types. Long-term protected recipient sites with an average depth to the seasonal high (DWT) of 130 centimeters (4.3 feet) or greater meet the *Desirable* criteria threshold and may be eligible for a 0.5 tortoise per acre increase in the site evaluation maximum allowable tortoise density. Site-specific soil information can be obtained by referring to the Natural Resources Conservation Service (NRCS) Web Soil Survey (www.soils.usda.gov) for the appropriate county.
- D. Vegetation Features: Sites with Acceptable habitat features are those that contain both of the following: average herbaceous cover of at least 30% and average canopy cover of 60% or less. Woody vegetation should not comprise more than an average of 20% of the herbaceous ground cover. Long-term protected recipient sites and public conservation lands recipient sites for restocking with average herbaceous cover greater than 50% and average canopy cover less than 40% meet the Desirable criteria threshold and may be eligible for a 0.5 tortoise per acre increase in the site evaluation maximum allowable tortoise density. Herbaceous cover (low-growing, soft-stemmed plants) should include broadleaf grasses and, preferably, grass-like asters (sunflower family) and legumes (bean family). Vegetation survey methods are outlined in Appendix 7.
- E. Enhanced Conservation Value: Proposed long-term protected recipient sites and recipient sites for restocking public conservation lands may be awarded a 0.5 tortoise per acre increase in the site evaluation maximum allowable tortoise density if FWC determines that the site has enhanced conservation value by any of the following: 1) adjacency to existing public or private conservation lands that together provide >200 acres of contiguous suitable upland gopher tortoise habitat that satisfy the threshold for *Desirable* criteria; 2) the site boundaries are 100% within a designated Strategic Habitat Conservation Area; or 3) at least 75% of the recipient site is vegetated with one or more of the following native upland plant communities: sandhill, scrubby flatwoods, or dry prairies (Table 2).
- F. Baseline Densities: Survey techniques to determine the existing (baseline) tortoise population density are provided in Appendix 4. Supporting information should include potential reasons for low tortoise densities (e.g., past harvest; previous, but now rectified, inadequate habitat management). The burrow survey used to generate this estimate must be performed no more than 90 days before the date the permit application is submitted. A map showing the site boundaries, transect locations, locations of all documented tortoise

Florida Fish and Wildlife Conservation Commission

burrows, and corresponding tortoise densities will serve as the baseline for future monitoring efforts.

- G. Site Evaluation Stocking Rate: The site evaluation stocking rate is defined as the maximum allowable gopher tortoise density as determined by the scoring process depicted in Table 2, Acceptable and Desirable Criteria Thresholds for Recipient Site Characteristics. A site that meets all three Acceptable criteria will be assigned an evaluation stocking rate of two tortoises per acre. Evaluation stocking rates for long-term protected recipient sites recipient sites for restocking public conservation lands may increase in increments of 0.5 individual per acre for each Desirable criterion that is met, up to a maximum of two additional individuals (four per acre total).
- H. Determination of Final Stocking Rate: The final stocking rate for a recipient site equals the site evaluation stocking rate minus the baseline density, i.e., final stocking rate = (site evaluation stocking rate) (baseline density). For all calculations involving stocking rate, consider only tortoises greater than or equal to 130 mm (5 inches) in carapace length. Eggs and juvenile tortoises less than 130 mm are not considered in these calculations because of their low survivorship and minimal effect on the recipient site forage base. Recipient sites for restocking public conservation lands shall be stocked at no more than 50% of the site evaluation stocking rate

When assigning the baseline density and calculating the final stocking rates, applicants submitting permit requests for sites that have been previously approved by FWC and used as a recipient site for tortoise standard relocation and/or incidental take permits shall include the number of resident tortoises reported for the site when it was originally approved and all tortoises released at the site under previously issued FWC permits (or authorized for release when no post-relocation reports have been sent to FWC).

- I. Enclosure Methods: Restraint of tortoises inside an enclosure at the recipient site for a minimum period of six months is required for all relocations as a condition of the relocation permit. This process is called "soft release." Recent studies have indicated that site fidelity is enhanced by temporarily enclosing tortoises. Because there is still insufficient scientific knowledge regarding tortoise carrying capacity, tortoise response to relocation, post-relocation site fidelity, social interactions between relocated and resident tortoises, and possible disease transmission through relocations, FWC is establishing experimental guidelines at this time to initiate relocation within temporary enclosures and to evaluate the effects. As additional information becomes available, these guidelines may be modified to ensure that they achieve the management plan objectives. The following guidelines include enclosure methods and procedures proven to be effective.
  - All tortoises relocated to any recipient site (including unprotected recipient sites) shall be released into a temporary enclosure as described below and retained within the enclosure for a period of not less than six months and no more than twelve months. However, there is no maximum enclosure time limit for recipient sites that are permanently fenced in their entirety and that are stocked at a density equal to the approved final stocking density for the site.
  - Applicants with special circumstances may apply to be released from this

requirement. Special circumstances include the following: recipient sites with natural or artificial boundaries to restrain most tortoises (e.g., islands, coastlines, major rivers or large lakes, existing fencing that prevents the passage of all tortoises released at the site).

- Tortoises shall be released into temporary fenced enclosures at no more than 1.5 times the approved overall final stocking density for the site. However, the maximum number of gopher tortoises approved by FWC for release into the entire recipient site parcel shall not be exceeded. Enclosures within recipient sites with varying approved stocking rates may be stocked at 1.5 times the approved density for the area in which the enclosure is located. If an enclosure encompasses an area with varying approved stocking rates, then the enclosure's approved gopher tortoise density will be proportional to the number of acres in each approved stocking rate area. For example, if a 40-acre recipient site initially containing no gopher tortoises includes a 15-acre enclosure encompassing five acres that are approved for a final density of two gopher tortoises per acre, then the enclosure can receive up to 60 gopher tortoises  $1.5 [(5 \times 2) + (10 \times 3)]$ .
- Temporary enclosures may be of any material that prevents the passage of tortoises of all sizes released to the site. Recommended and cost-effective materials include Belton Industries #935 pre-assembled silt fence (a more durable type of silt fence; see Glossary for purchasing information) and hay or pine straw bales.
- With the exception of hay or pine straw bales, temporary fencing must be buried at least eight inches into the ground to prevent tortoises pushing beneath the enclosure and must be at least two feet high and of sufficient robustness to prevent tortoises pushing or climbing over.
- Temporary fencing must be regularly monitored and maintained to repair damage and maintain the integrity of the temporary enclosure.
- Tortoises observed above ground and tortoise burrow numbers and activity status within the temporary enclosures shall be monitored weekly for the first month and monthly thereafter to document any problems with relocated tortoises (e.g., illness, mortality, evidence of human poaching, emigration). The FWC permitting office must be contacted if decreases in tortoise numbers are documented.
- J. Management Plan: Gopher tortoise habitat requires active management. A detailed management plan mirroring the length of protection is a vital part of gopher tortoise conservation efforts on all FWC-permitted recipient sites. Management plan requirements are outlined in Appendix 3.

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SITE CHARACTERISTIC	ACCEPTABLE CRITERIA	DESIRABLE CRITERIA		
Size	> 40 acres	> 200 acres		
Soil	<ul> <li>&gt; 45 cm DWT, with land cover verification for flatwoods sites</li> <li>&gt;31 cm (select cases)</li> </ul>	>130 cm DWT		
Habitat	> 30% herb cover < 60% canopy cover	>50% herb cover <40% canopy cover		
Enhanced Conservation Value		Adjacent to protected land, or in Strategic Habitat Conservation Area, or $\geq$ 75% native upland community (maximum of 0.5 per acre)		
Maximum Allowable Gopher Tortoise Density	Two per acre (requires all above criteria be satisfied)	0.5 per acre for each site characteristic that is satisfied, up to a maximum of two additional (four per acre maximum)		

	Table 2.	Acceptable and Des	sirable Criteria Thresho	olds for Recipient Sites
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# Temporary Exclusion Permit for Major Linear Utility Corridors

This type of on-site relocation conservation permit is specifically reserved for the installation or maintenance of major linear utility transmission lines (e.g., major natural gas or electric transmission lines). This permit applies to situations that require the temporary exclusion of tortoises from the utility construction corridor and where habitats within the corridor will be restored to provide suitable habitat for tortoises following completion of the utility installation. These permits require the temporary installation of filter fabric (silt fencing) or other comparable fencing (buried at least eight inches into the ground) along the outer edge of the construction right-of-way to block tortoise re-entry into the corridor during construction activities. Such fencing is only required along those portions of the construction corridor where tortoises are documented and are to be relocated from the construction area. The FWC will also consider other proposed options of keeping gopher tortoises out of harm's way in the immediate area of construction on these types of projects.

Temporary exclusion permits authorize the capture of tortoises from within the utility corridor right-of-way project area and their immediate release on the other side of the temporary fencing into adjacent suitable habitat. Tortoises must be released outside the project corridor in close proximity relative to where each tortoise was captured. The gopher tortoise density after

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relocation within the designated recipient area shall not exceed either three tortoises per acre, or 1.5 times the existing gopher tortoise density within the recipient area, whichever is greater. This does not authorize placement of tortoises on properties not under control of the permittee. The permittee must obtain written approval from the adjacent landowner granting permission to the permittee to release the tortoises on the landowner's property. The temporary fencing must be removed following completion of the utility project and after the habitat has been restored. Tortoises can then naturally reoccupy restored habitat within the utility corridor.

Gopher tortoises may be released into an on-site enclosure in conformance with the FWC enclosure requirements. Enclosures shall not be located on the opposite side of barriers which deter tortoises from returning to the location where they were originally captured. Enclosure fencing shall be removed before expiration of the permitted maximum temporary exclusion time period or upon project completion, whichever comes first. The final gopher tortoise density within the enclosure shall not exceed three gopher tortoises per acre.

The application information requirements for this permit are the same as for conservation permits with on-site relocation of the affected tortoises. This permit is not intended, and will not be issued, for the installation of local utility service lines that are being installed as a precursor to development or to facilitate the development of the adjacent or surrounding area (e.g., infrastructure for specific development projects, planned subdivisions, or multiple projects or subdivisions). Permit applications for those projects must address impacts to all tortoises and tortoise burrows contained within the entire planned project development boundaries. For major linear utility corridor projects that include the construction of permanent structures used to service or maintain the installed utilities (e.g., gas compressor stations, water wells, pumping stations) do not qualify for a Temporary Exclusion permit and must be permitted separately to permanently relocate gopher tortoises.

#### **Burrow or Structure Protection Permit**

Burrow or Structure Protection permits are available when the integrity or utility of an existing structure is jeopardized by one or two burrows and therefore poses a public safety concern (e.g., burrow under a propane tank), or if the safety of the resident tortoise is compromised (e.g., burrows in a grass parking lot, dirt driveway, etc.). Application requirements and tortoise capture and handling procedures are similar to those for 10 or Fewer Burrows permits (See Appendix 11); however, tortoises relocated under a Burrow or Structure Protection permit shall only be relocated on-site. This type of permit may only be issued once a year for a contiguous property under the same ownership. As part of the application process, the applicant must complete the required online training (available at <u>MyFWC.com/GopherTortoise</u>) or the approved equivalent written training, unless the relocation activities are conducted by an Authorized Gopher Tortoise Agent.

In most cases, it is best to live with tortoises and their burrows. Relocations are stressful for gopher tortoises. The process takes time, money, and physical labor. Typical activities associated with residential lawn and landscape maintenance do not require a permit, provided the activities do not collapse gopher tortoise burrows or harm gopher tortoises. Activities that

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require a permit are listed in Section II, Determining If a Permit Is Required. Visit <u>MyFWC.com/GopherTortoise</u> or contact FWC for more information on living with gopher tortoises.

#### **On-Site Relocation under the Burrow or Structure Protection permit**

This permit authorizes landowners or other individuals who have completed FWC online training to capture gopher tortoises (via bucket trapping, hand-shovel excavation, or live trapping) and to relocate tortoises to an on-site location within the property boundaries specified in the application. [Note: Only an authorized agent whose permit authorizes the supervision of burrow excavations using mechanical equipment may capture or attempt to capture gopher tortoises using a backhoe.] On-site recipient area criteria follow the same criteria as the 10 or Fewer Burrows permits and can be found in Appendix 11. Landowners may obtain the assistance of an authorized gopher tortoise agent for on-site relocations, as described under *Authorized Gopher Tortoise Agent Permit* above.

Release of tortoises must be accomplished in such a way as to preclude tortoises from returning to their burrows. Penning is not allowed under the Burrow or Structure Protection permit. These permits may require permanent or temporary fencing in an appropriate configuration to exclude tortoises from returning to the compromised burrow. Collapsing or filling those burrows is required upon capture and relocation of the resident tortoises. If fencing is necessary, a brief explanation should be provided in the application addressing why and what methods will be used to restrict tortoise access.

Tortoises cannot be relocated off-site under a Burrow or Structure Protection permit. If adequate suitable gopher tortoise habitat is not available on-site and tortoises must be moved off-site, applicants may qualify for a 10 or Fewer Burrows permit.

#### **Emergency Take without Relocation Permit**

This permit will be issued only under limited and specific circumstances, in cases where there is an immediate danger to the public's health and/or safety or in direct response to an official declaration of a state of emergency by the Governor of Florida or a local governmental entity. Applications submitted for this permit must include all information that is required from any other applicant seeking a conservation permit, along with a copy of the official declaration of a state of emergency. This permit process may be handled after the fact or at least after construction activities have already started. It is preferred that contact with FWC should be made as soon as possible to minimize adverse impacts to gopher tortoises and their burrows.

This section does not cover what should happen when a local emergency requiring immediate action to protect human safety and welfare, property, and wildlife and its habitat occurs. Because it is not possible to anticipate every circumstance (*e.g.*, a local oil spill along a highway that contaminates soil adjacent to a gopher tortoise burrow), the best solution would be for anyone encountering an emergency to contact FWC as soon as possible and to request assistance in determining the best course of action to take.

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# **Disturbed Site Permit**

# Criteria for Relocation of Gopher Tortoises from Disturbed Sites

The Disturbed Site permit may be required in situations where premature disturbance to the vegetation or ground has occurred before gopher tortoise burrow surveys are complete or before gopher tortoise capture and relocation activities have been completed. This permit provides an option for mitigation and relocation of tortoises within disturbed portions of the project area. These permits are not punitive and may or may not be issued in association with FWC law enforcement investigations, but will not be issued until all associated FWC law enforcement investigations have been completed. Survey, capture, and relocation activities must be conducted by an Authorized Gopher Tortoise Agent.

Disturbed Site permits are issued when *all four criteria* below are met:

- Evidence of site disturbance to the ground or vegetation must be present on the site and within suitable gopher tortoise habitat
- Site disturbance either prevents:
  - Complete and accurate tortoise burrow surveys from being conducted (15% and 100% surveys as described in FWC guidelines), or;
  - FWC staff from conducting on-site inspections to verify 15% or 100% survey results prior to site disturbance commencing.
- Any one of the following applies:
  - Impact is to any part of the project area with documentation of gopher tortoises burrows on site (e.g., a past, valid, tortoise burrow survey of the disturbed area exists, showing burrows were present; physical evidence that burrows were present; or photographs), or;
  - Evidence of tortoise burrows is visible within the disturbed area, on the property where disturbance occurred, or is within close proximity on adjacent properties, or;
  - Evidence of impact to any tortoise or tortoise burrow.
- Disturbance to the project site has occurred within the past 18 months.

The criteria above may be met before a tortoise permit application has been received by FWC, during the permit application process, or after a permit has been issued, depending on when disturbance activities occur.

If the project site meets all criteria before 100% burrow survey reports and maps are submitted to FWC, or before the 72-hour waiting period after which such reports have been received by FWC, or before the completion of gopher tortoise capture and relocation activities, then active relocation permits or permit applications will be revoked or denied so that a Disturbed Site permit application may be submitted.

In cases where only a portion of the project site is prematurely disturbed and all relocation activities will not be covered under a Disturbed Site permit, another relocation permit (e.g.,

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Conservation permit) will be issued for the remainder of the property. This only applies when discrete and contiguous, undisturbed areas of the project site can be identified.

Disturbed sites require different burrow survey protocols for estimating numbers of tortoises present and calculating mitigation contributions. Refer to Appendix 4 for details.

# Mitigation Contributions, Refunds, and Recipient Site Requirements

All mitigation contributions must be submitted before Disturbed Site permits are issued. Mitigation contributions for Disturbed Sites are higher than for other relocation permits to mitigate for tortoises which may be buried underground or have left the project site in response to disturbance activities and cannot be relocated. FWC may provide a refund for each tortoise successfully captured and relocated as described for each permit type. Refunds for mitigation are not provided if no tortoises are relocated.

Areas within the project site that were not disturbed will be covered in a separate conservation or temporary exclusion permit. Reduced mitigation for relocation permits for the first five tortoises (10 burrows) will only be allotted for one of the two permits associated with the project. The disturbed site permit and other associated permit will be applied for concurrently.

All project sites qualify for one of three disturbed site permit types: "10 or Fewer Burrows," "Conservation," or "Temporary Exclusion." The entire project site is considered when determining the permit category, including any undisturbed areas (which are permitted separately). For example, a project site with 10 burrows inside disturbed areas and three burrows outside disturbed area (i.e., a total of 13 burrows) would qualify for a Disturbed Site Conservation permit. In this case, a Disturbed Site Conservation permit would authorize gopher tortoise relocation for the disturbed areas and a separate Conservation permit would authorize gopher tortoise relocation for the undisturbed portion of the project site. Temporary Exclusion Disturbed Site permits only cover the disturbed portion of the project site.

#### Disturbed Site 10 or Fewer Burrows Permit

The mitigation contribution for this permit follows the standard 10 or Fewer Burrows permit (outlined in Table 1.) with an additional \$500 required for each tortoise estimated within the disturbed area. FWC may provide a refund of \$500 for each tortoise successfully captured and relocated. In instances where additional tortoises greater than the original permitted number are found, a permit amendment must be requested (with additional mitigation) and received prior to continuing relocation activities.

#### Disturbed Site Conservation Permit

The mitigation contribution for this permit follows that of the standard Conservation permit (outlined in Table 1.) with an additional \$1,500 required for each tortoise estimated within the disturbed area. FWC may provide a refund of \$1,500 for each tortoise successfully captured and relocated. In instances where additional tortoises are captured greater than the original permitted

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number, a permit amendment must be requested (with additional mitigation) and received before additional tortoises are relocated.

# Disturbed Site Temporary Exclusion Permit for Major Linear Utility Corridors

The mitigation contribution for this permit follows that of the Temporary Exclusion permit for exclusions of 4-6 months (outlined in Table 1.), with an additional \$500 required for each tortoise estimated within the disturbed area. FWC may provide a refund of \$500 for each tortoise successfully captured and relocated. In instances where additional tortoises are captured greater than the original permitted number, a permit amendment must be requested (with additional mitigation) and received before additional tortoises are relocated.

#### Due Process for Gopher Tortoise Permit Applicants

The FWC adheres to the time requirements specified in Chapter 120, Florida Statutes, for processing permit applications. Upon submittal of an application, FWC staff will respond within 30 days requesting any additional information from the applicant. Upon receipt of all information necessary to complete an application, FWC staff will prepare and issue a permit within 90 days (but attempt to accomplish this within 45 days). Any person has a right to challenge the action of FWC on a given permit application. Each permittee is provided an "Election of Rights" form with the issued permit that conveys instructions for filing an informal or a formal hearing request.

Any non-permitted person who believes that their substantial interests would be affected by the action taken by FWC on a gopher tortoise permit application may also petition the agency for a hearing. For information on how to submit such a request, please contact: The Office of General Counsel, Florida Fish and Wildlife Conservation Commission, 620 South Meridian Street, Tallahassee, Florida 32399-1600.

Deviations from permitting requirements shall be granted only when the person subject to the requirements demonstrates a substantial hardship not intended by these guidelines and which violates principles of fairness. The person must also demonstrate the goals of the underlying Gopher Tortoise Management Plan will be or have been achieved by other means. For purposes of considering granting a deviation, "substantial hardship" means a demonstrated economic, technological, legal, or other type of hardship to the person requesting the deviation. For purposes of considering granting a deviation, "principles of fairness" are violated when the literal application of rules or guidelines affects a particular person in a manner significantly different from the way it affects other similarly situated persons.

# V. HANDLING OF COMMENSAL SPECIES DURING RELOCATIONS

As the keystone species of Florida's uplands, the gopher tortoise provides refuge to some 350-400 other species. These commensal species may be intimately tied to tortoise burrows or may be occasional visitors, but the underground microhabitats serve as multi-purpose retreats that are

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Gopher Tortoise Permitting Guidelines

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used for feeding, resting, reproduction, and protection from temperature extremes, moisture loss, and predators. Threats to commensal species are similar in nature to those faced by the gopher tortoise and have been addressed in the Gopher Tortoise Management Plan. One of the objectives outlined in the Management Plan is to promote the responsible, humane relocation of burrow commensals encountered during relocation efforts. An added benefit is the likely increase in biodiversity when commensals are released with the tortoises on recipient sites. The guidelines in Appendix 9 have been created to provide guidance for authorized agents who capture commensal species during gopher tortoise relocations. Emphasis is placed on four listed species, with the understanding that these species have habitat needs that generally go beyond those of the gopher tortoise and will, therefore, need to be considered during relocations.

Docket No. 120007-EI St. Lucie Plant (PSL) NPDES Permit RRL-8, Page 1 of 17



# Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Rick Scott Governor

Jennifer Carroll Lt. Governor

Herschel T. Vinyard Jr. Secretary

# CERTIFIED MAIL RETURN RECEIPT REQUESTED

In the Matter of an Application for Permit by:

Florida Power & Light Mr. Richard L. Anderson Vice President 6451 S. Ocean Drive Jensen Beach, Florida 34957 PA File No. FL0002208-011-IW1S St. Lucie Plant Units 1 and 2 NPDES Permit No. FL00002208 St. Lucie County

#### NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number FL0002208 to Florida Power & Light authorizing wastewater discharge from Units 1 and 2 at the St. Lucie Plant to the Atlantic Ocean, a Class III marine water, issued under Section 403.0885, Florida Statutes, and DEP Rule 62-620, Florida Administrative Code.

Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any.

Any party to this order (permit) has the right to seek judicial review of the permit under Section 120.68, Florida Statutes, by the filing of a Notice of Appeal under Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORID DEPARTMENT ENVIRONME AL PROTECTION OF

Mark P. Thomasson, P.E. Director Division of Water Resource Management 2600 Blair Stone Road Tallahassee, FL 32399-2400

#### www.dep.state.fl.us

Progress Energy Florida Crystal River Energy Complex Units 4 &5 Docket No. 120007-EI St. Lucie Plant (PSL) NPDES Permit RRL-8, Page 2 of 17 Page 2of 2 NPDES Permit No. FL0036366

# CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed by certified mail before the close of business on  $\sqrt{9} \cdot 29 - 2011$  to the listed persons.

# [Clerk Stamp]

#### FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

hirley Phillo 29-29.2011 Jerk Date

Copies furnished by certified mail to:

Mark Nuhfer, NPDES Permitting Section, EPA Region 4, Atlanta, GA Chairman, Board of St. Lucie County Commissioners

Copies furnished by First Class mail to:

Florida Fish and Wildlife Conservation Commission, Conservation Planning Services U.S. Fish & Wildlife Service John Jones, Florida Power & Light

Copies furnished by intradepartmental mail to: Linda Brien, P.G., DEP West Palm Beach John A. Armstrong, P.E., DEP West Palm Beach Michael Hambor, DEP West Palm Beach Terry Davis, DEP St. Lucie Cindy Mulkey, DEP Tallahassce

Docket No. 120007-EI St. Lucie Plant (PSL) NPDES Permit RRL-8, Page 3 of 17

# STATE OF FLORIDA INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE: Florida Power & Light (FPL)

RESPONSIBLE OFFICIAL: Richard L. Anderson Vice President 6501 S. Ocean Drive Jensen Beach, Florida 34957

FACILITY:

 St. Lucie Power Plant Units 1 and 2

 Hutchinson Island

 St. Lucie County, Florida

 Latitude: See Note Below

 Longitude: See Note Below

Note: Latitude and longitude are not shown at the permittee's request, for purposes of Homeland Security pursuant to federal regulations found at 18 CFR 388.113(c)(i) and (ii) and by Presidential Directive dated December 17, 2003.

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and applicable rules of the Florida Administrative Code (F.A.C.) and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. This permit is accompanied by an Administrative Order, pursuant to paragraphs 403.088(2)(e) and (f), Florida Statutes. Compliance with Administrative Order, AO022TL is a specific requirement of this permit. The above named permittee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

#### FACILITY DESCRIPTION:

The facility is an electric generating plant with a total nameplate rating of 1908 megawatts. The facility consists of two nuclear powered steam electric generating units (Unit 1 and Unit 2).

Units 1 and 2 use water from the Atlantic Ocean, a Class III marine water body, to remove heat from the main condensers via the once-through cooling water (OTCW) and auxiliary equipment cooling water (AECW) systems. Cooling water gravity flows from the Atlantic Ocean through three offshore intake structures into the intake canal. The water is then pumped through the main condensers for each unit. Heated cooling water is released to the discharge canal and back to the Atlantic Ocean through existing offshore Y and multi-port diffusers.

Units 1 and 2 are also regulated under the Florida Electrical Power Plant Siting Act (License No. PA74-02).

The radioactive component of the discharge is regulated by the U.S. Nuclear Regulatory Commission under the Atomic Energy Act, and not by the Department of the U.S. Environmental Protection Agency under the Clean Water Act.

#### WASTEWATER TREATMENT:

Facility discharge and treatment include the following. Once-through non-contact condenser cooling water (OTCW) and auxiliary equipment cooling water (AECW) are chlorinated. Low volume waste (LVW) (consisting of water treatment system wastewater, steam generator/boiler blowdown, and equipment area floor drainage), non-radioactive wastes/liquid radiation waste, and stormwater associated with industrial activity are treated by chemical/physical processes including neutralization, settling, ion exchange and micro filtration. Non-industrial stormwater and intake screen wash water are discharged without treatment.

PERMIT NUMBER:FIFILE NUMBER:FIISSUANCE DATE:SeEXPIRATION DATE:Se

FL0002208 (Major) FL0002208-011-IW1S September 29, 2011 September 28, 2016 PERMITTEE: Florida Power & Light (FPL) FACILITY: St. Lucie Power Plant

PERMIT NUMBER: **EXPIRATION DATE:** 

Docket No. 120007-EI St. Lucie Plant (PSL) NPDES Permit RRL-8, Page 4 of 17 FL0002208 (Major) September 28, 2016

#### **REUSE OR DISPOSAL:**

Surface Water Discharge D-001: An existing 1,487 MGD daily maximum flow, 1,362 annual average daily flow permitted discharge to the onsite discharge canal, thence to the Atlantic Ocean, Class III Marine Waters, (WBID 8103).

Internal Outfall I-003: An existing permitted discharge to the discharge canal.

Internal Outfall I-005: An existing permitted discharge to the discharge canal.

Internal Outfall I-007: An existing permitted discharge to the discharge canal.

Internal Outfall I-008: An existing permitted discharge to theIntakecanal.

Storm Water Outfall I-06B: An existing intermittent permitted storm water discharge to the intake canal via an outlet control structure.

Storm Water Outfall I-06C: An existing intermittent permitted storm water discharge to the intake canal via an outlet control structure.

Storm Water Outfall I-06D: An existing intermittent permitted storm water discharge to the intake canal via an outlet control structure.

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions set forth in this Cover Sheet and Part I through Part IX on pages 1 through 25 of this permit.

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PERMITTEE: Florida Power & Light (FPL) FACILITY: St. Lucie Power Plant

# I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

#### A. Surface Water Discharges

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge once-through non-contact cooling water and auxiliary equipment cooling water from Outfall D-001 to the Atlantic Ocean. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition 1.C.3.:

				· · · · · · · · · · · · · · · · · · ·				
			Efflu	ent Limitations	Mon	itoring Require	ments	
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max	Report	Daily Maximum	Hourly	Pump Logs	FLW-J	
Temperature, Water (During Normal Operation)	Deg F	Max	Report	Daily Maximum	Hourly	Recorder	EFF-2	Scc I.A.4 and I.A.5
Temperature, Water (During Maintenance Activities)	Deg F	Max	117	Daily Maximum	Hourly	Recorder	EFF-2	Sce I.A.4 and I.A.5
Temp. Diff. between Intake and Discharge (During Normal Operation)	Deg F	Max	30	Daily Maximum	Hourly	Calculated	INT-1 EFF-2	Sce I.A.4 and I.A.5
Temp. Diff. between Intake and Discharge (During Maintenance Activities)	Deg F	Max	32	Daily Maximum	Hourly	Calculated	INT-1 EFF-2	Sce I.A.4 and I.A.5
Oxidants, Total Residual	mg/L	Max Max	0.1 0.1	Daily Maximum Monthly Average	Continuous	Recorder	EFF-2	See I.A.6 And I.A.7 And Section VI.6
Chlorination Duration	aim	Max	Ï20	Daily Maximum	Daily; 24 hours	Logs	EFF-1	and I.A.8
Nitrogen, Ammonia, Total (as N)	mg/L	Max	Report	Single Sample	Quarterly	Grab	EFF-2 INT-1	
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Single Sample	Quarterly	Grab	EFF-2 INT-1	
Nitrite plus Nitrate, Total 1 det. (as N)	mg/L	Max	Report	Single Sample	Quarterly	Grab	EFF-2 INT-1	
Nitrogen, Total	mg/L	Max	Report	Single Sample	Quarterly	Grab	EFF-2 INT-1	
Phosphorus, Total (as P)	mg/L	Max	Report	Single Sample	Quarterly	Grab	EFF-2 INT-1	
Phosphate, Ortho (as PO4)	mg/L	Max	Report	Single Sample	Quarterly	Grab	EFF-2 INT-1	
Chronic Whole Effluent Toxicity, 7-Day IC25 (Mysidopsis bahia)	percent	Min	100	Single Sample	Quarterly	24-hr TPC	EFF-2	Sec 1.A.13
Chronic Whole Effluent Toxicity, 7-Day IC25 (Menidia beryllina)	percent	Min	100	Single Sample	Quarterly	24-hr TPC	EFF-2	See I.A.13

2. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition 1.A.1. and as described below:

3

Monitoring Site Number	Description of Monitoring Site
FLW-1	Pump log or recorder.
EFF-2	Within the discharge canal upstream of the discharge piping to the Atlantic Ocean.
EFF-1	Outlet corresponding to the individual condenser from Unit 1 or Unit 2.
INT-1	At plant intake structure within the intake canal.

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- 3. The discharge shall not contain components that settle to form putrescent deposits or float as debris, scum, oil, or other matter in such amounts as to form nuisances. [62-302.500(1)(a)]
- 4. At monitoring location EFF-2, the heated water temperature shall not exceed 113°F, before notification to the Department for power uprate completion for Units 1 and 2, or 115°F, after notification to the Department for power uprate completion for Units 1 and 2, and 30°F above ambient at any time except that the maximum discharge temperature shall be limited to 117°F and 32°F above ambient during circulating water system maintenance. In determining the temperature differential, the time of travel through the plant may be considered. The permittee shall submit with the Discharge Monitoring Report a summary of cooling water system maintenance activities and associated maximum discharge temperature reading and temperature difference above ambient. The summary will include a brief explanation of nuisance activities. In the event that discharge temperature exceeds the temperature limitations, the permittee shall notify the Department within 5 days.

Circulating water system maintenance (including, but not limited to, condenser and/or circulating water pump maintenance) shall mean:

- Repair or scheduled preventive activities that maintain the facility's circulating water system and its support a. systems within its as-designed capacity; and
- b. Results in at least one circulating water pump being shut down, or equivalent loss of heat removal, on each unit being shut down and in such amounts as to form nuisances.
- 5. Heated water from Outfall D-001 shall not cause the ocean surface temperature to exceed 97°F as an instantaneous maximum at any point extending seaward from the most seaward 18-foot depth contour line (three-fathom bottom depth contour) which is offshore from Hutchinson Island. In addition, during June, July, August, and September, no heated water from Outfall D-001 with a temperature above 92°F shall move shoreward past the 18-foot depth contour line into adjacent coastal waters. Further, no heated water with a temperature above 90°F move shoreward past the 18-foot depth contour line into coastal waters during the period October thru May.

Heated water discharged from any port of the multi-port diffuser shall not exceed 17°F above ambient temperature in the receiving body of water outside a thermal mixing zone extending 5.50 meters seaward along the center line and 2.15 meters each side of the centerline of each port (a total area of 12 square meters for each port). Heated water discharged from the Y diffuser shall not exceed 17°F above ambient temperature in the receiving body of water outside a circular thermal mixing zone with a 13.93-meter radius originating at the midpoint between the orifices of the Y diffuser (a total area of 610 square meters for both Y diffusers). The total area of the thermal mixing zone for the facility (multi-port and Y diffusers) shall not exceed 1306 square meters.

[62-302.520, F.A.C.]

6. Total Residual Oxidants (TRO) means the value obtained using testing procedures for Total Residual Chlorine (TRC) found in 40 CFR 136.3.

When automated TRO monitors are operable, TRO shall not exceed a maximum instantaneous concentration of 0.1 mg/l at any one time as measured at monitoring location EFF-2.

If automated TRO monitors are inoperable for more than 7 days, TRO monitoring shall be conducted at least one time per week on not less than three grab samples during daylight hours. Multiple grab samples shall be collected during periods of TRO discharge from condensers.

Multiple grabs for TRO shall be defined as once per five minutes during TRO discharge periods of 30 minutes or less and once per 15 minutes for periods exceeding 30 minutes with no less than four analyses during the period of TRO discharge (sampling shall be continued until the end of the TRO discharge).

Neither free available chlorine (FAC), total residual oxidant (TRO), nor any other Department-approved biocide shall be discharged from any condenser for more than two hours in any one day and not more than any one

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tower shall discharge FAC, TRO or other biocide at any one time. TRO and biocide monitoring shall be adequate to document compliance with this requirement. Chlorine shall not be used in conjunction with any other biocide during treatment of the condensers. [40 CFR 423.13(b)(2)]

- 8. Auxiliary equipment cooling water may receive continuous low-level chlorination.
- 9. The permittee shall maintain the current intake through-screen velocity such that the existing maximum velocity is not exceeded. [C.W.A. 316(b)]
- 10. The permittee shall maintain current traveling screen practices at Units 1 and 2 so as to assure that the screens are cycled twice during each 24 hours of continuous operation unless precluded by repair/maintenance requirements. [C.W.A. 316(b)]
- 11. The permittee shall develop a plan in accordance with the schedule in Condition VI.4 to help return live fish, shellfish, and other aquatic organisms collected or trapped on the intake screens to their natural habitat. Other material shall be removed from the intake screens and disposed of in accordance with all existing Federal, State and/or Local laws and regulations that apply to waste disposal. Such material shall not be returned to the receiving waters. [C.W.A. 316(b)]
- 12. The permittee shall monitor aquatic organism entrapment in the intake canal. The permittee shall capture and return entrained organisms in the intake canal safely and as quick as possible when practical not cause harm. The permittee shall provide a summary of these efforts with the permit renewal application. [C.W.A. 316(b)]
- 13. The permittee shall comply with the following requirements to evaluate chronic whole effluent toxicity of the discharge from outfall D-001.
  - a. Effluent Limitation
    - In any routine or additional follow-up test for chronic whole effluent toxicity, the 25 percent inhibition concentration (IC25) shall not be less than 100% effluent. [Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.]
    - (2) For acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent in any test. [Rules 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]
  - b. Monitoring Frequency
    - (1) Routine toxicity tests shall be conducted once every three months, the first starting within 60 days of the issuance date of this permit and lasting for the duration of this permit.
    - (2) Upon completion of four consecutive, valid routine tests that demonstrate compliance with the effluent limitation in 13.a.(1) above, the permittee may submit a written request to the Department for a reduction in monitoring frequency to once every six months. The request shall include a summary of the data and the complete bioassay laboratory reports for each test used to demonstrate compliance. The Department shall act on the request within 45 days of receipt. Reductions in monitoring shall only become effective upon the Department's written confirmation that the facility has completed four consecutive valid routine tests that demonstrate compliance with the effluent limitation in 13.a.(1) above.
    - (3) If a test within the sequence of the four is deemed invalid based on the acceptance criteria in EPA-821-R-02-014, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive valid tests for the purpose of evaluating the reduction of monitoring frequency.
  - c. Sampling Requirements
    - (1) For each routine test or additional follow-up test conducted, a total of three 24-hour composite samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-014, Section 8.
    - (2) The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.
    - (3) Samples for routine and additional follow-up tests shall not be collected on the same day.

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#### d. Test Requirements

- (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: 100%, 50%, 25%, 12.5%, and 6.25% final effluent.
- (2) The permittee shall conduct 7-day survival and growth chronic toxicity tests with a mysid shrimp. Americamysis (Mysidopsis) bahia, Method 1007.0, and an inland silverside, Menidia beryllina, Method 1006.0, concurrently.
- (3) All test species, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, 3rd Edition, EPA-821-R-02-014. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.
- (4) The control water and dilution water used shall be artificial sea salts as described in EPA-821-R-02-014, Section 7.2. The test salinity shall be determined as follows:
  - (a) For the Americamysis bahia bioassays, the effluent shall be adjusted to a salinity of 20 parts per thousand (ppt) with artificial sea salts. The salinity of the control/dilution water (0% effluent) shall be 20 ppt. If the salinity of the effluent is greater than 20 ppt, no salinity adjustment shall be made to the effluent and the test shall be run at the effluent salinity. The salinity of the control/dilution water shall match the salinity of the effluent.
  - (b) For the Menidia beryllina bioassays, if the effluent salinity is less than Sppt, the salinity shall be adjusted to 5 ppt with artificial sea salts. The salinity of the control/dilution water (0% effluent) shall be 5 ppt. If the salinity of the effluent is greater than 5 ppt, no salinity adjustment shall be made to the effluent and the test shall be run at the effluent salinity. The salinity of the control/dilution water shall match the salinity of the effluent.
  - (c) If the salinity of the effluent requires adjustment, a salinity adjustment control should be prepared and included with each bioassay. The salinity adjustment control is intended to identify toxicity resulting from adjusting the effluent salinity with artificial sea salts. To prepare the salinity adjustment control, dilute the control/dilution water to the salinity of the effluent and adjust the salinity of the salinity adjustment control at the same time and to the same salinity that the salinity of the effluent is adjusted using the same artificial sea salts.
- **Quality Assurance Requirements** e.
  - (1) A standard reference toxicant (SRT) quality assurance (OA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly chronic toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.
  - (2) If the mortality in the control (0% effluent) exceeds 20% for either species in any test or any test does not meet "test acceptability criteria", the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-014, Section 14.12 (Americaniysis bahia) and Section 13.12 (Menidia beryllina). The repeat test shall begin within 21 days after the last day of the invalid test.
  - (3) If 100% mortality occurs in all effluent concentrations for either species prior to the end of any test and the control mortality is less than 20% at that time, the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non-compliance.
  - (4) Routine and additional follow-up tests shall be evaluated for acceptability based on the observed doseresponse relationship as required by EPA-821-R-02-014, Section 10.2.6., and the evaluation shall be included with the bioassay laboratory reports.
- £ **Reporting Requirements** 
  - (1) Results from all required tests shall be reported on the Discharge Monitoring Report (DMR) as follows:
    - (a) Routine and Additional Follow-up Test Results: The calculated IC25 for each test species shall be entered on the DMR.

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- (2) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-014, Section 10, Report Preparation and Test Review, and mailed to the Department at the address below within 30 days after the last day of the test.
- (3) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-014, Section 10, and mailed within 30 days after the last day of the second valid additional follow-up test.
- (4) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.
- (5) The same bioassay data shall not be reported as the results of more than one test.
- (6) All bioassay laboratory reports shall be sent to: Florida Department of Environmental Protection Tallahassee Office 2600 Blair Stone Road, M.S. 3545 Tallahassee, Florida 32399-2400

g. Test Failures

- (1) A test fails when the test results do not meet the limits in 13.a.(1).
- (2) Additional Follow-up Tests:
  - (a) If a routine test does not meet the chronic toxicity limitation in 13.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 13.d.
  - (b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.
  - (c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, and 6.25% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be analyzed according to the procedures in EPA-821-R-02-014.
- (3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.
  - (a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.
  - (b) The Department shall review and approve the plan before initiation.
  - (c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
  - (d) Progress reports shall be submitted quarterly to the Department at the address above.
  - (e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 13.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 13.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-014, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.
  - (f) Upon completion of four consecutive quarterly valid routine tests that demonstrate compliance with the effluent limitation in 13.a.(1) above, the permittee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive quarterly valid routine whole effluent toxicity tests. If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive quarterly valid routine tests for the purpose of terminating the plan.
- (4) If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 13.(a)(2), the Department may revise this permit to require acute definitive whole effluent toxicity testing.

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(5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity failures.

#### [62-4.241, 62-620.620(3)]

- 14. The withdrawal of water for the testing and functioning of the emergency cooling systems for the St. Lucie Plant from that portion of the Indian River known as Big Mud Creek shall be in accordance with the following:
  - a. Testing of the alternate emergency cooling systems not to exceed 4,000,000 gallons per calendar year.
  - b. Flow of water in the alternate emergency cooling system, in the event that the main source of emergency cooling water from the Atlantic Ocean is not available, shall not exceed 60,000 gallons per minute, and may continue until the main source of emergency cooling water has been restored.
  - c. The permittee shall notify the Southeast District Office of the Department prior to each test of the emergency cooling canal system, and shall also notify the Department of any use of the emergency cooling canal system lasting more than twelve hours.
  - d. Starting with the issuance of this permit, all pertinent flow and length of time information associated with withdrawal of water from Big Mud Creek shall be kept on site in accordance with permit Condition V.2 and made available to Department inspectors upon request.

#### B. Internal Outfalls

During the period beginning on the issuance date and lasting through the expiration date of this permit, the
permittee is authorized to discharge process wastewater and monitoring well sample purge water from Internal
Outfall I-003 to the onsite discharge canal. Such discharge shall be limited and monitored by the permittee as
specified below and reported in accordance with Permit Condition I.C.3.:

				ent Limitations	Mon	itoring Requirer	nents	
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max. Max	Report Report	Daily Maximum Monthly Average	Per batch of process	Calculated	OUI-1	
Oil and Grease	mg/L	Min Max	15.0 20.0	Monthly Average Daily Maximum	Annually	Grab	OUI-1	
Solids, Total Suspended	mg/L	Max Max	30.0 100.0	Monthly Average Daily Maximum	Per batch of process	Grab	OUI-1	

2. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.1. and as described below:

Monitoring Site Number	
_	Description of Monitoring Site
OUI-1	Discharge from the radiation waste system prior to mixing with any other waste, stream.

3. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge steam generator blowdown from Internal Outfall I-005 to the onsite discharge canal. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

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			Effu	uent Limitations	Monitor	ing Requirem	ents	
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Weekly, when discharging	Calculated	OUI-2	Scc I.B.5
Oil and Grease	mg/L	Max Max	15.0 20.0	Monthly Average Daily Maximum	Weekly, when discharging	Grab	OUI-2	See I.B.5
Solids, Total Suspended	mg/L	Max Max	30.0 100.0	Monthly Average Daily Maximum	Weekly, when discharging	Grab	OUI-2	See I.B.5
Hydrazine	mg/L	Max	0.30	Daily Maximum	Weekly, when discharging	Grab	EFF-2	See I.B.5, I.B.6, and I.B.7
Carbohydrazide	mg/L	Max	Report	Daily Maximum	Weekly, when discharging	Grab	EFF-2	Scc I.B.5, I.B.6, and I.B.7

4. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.3. and as described below:

Monitoring Site Number	Description of Monitoring Site
OUI-2	Discharge from 1-005 prior to entering the discharge canal.
EFF-2	Within the discharge canal upstream of the discharge piping to the Atlantic Ocean.

- Internal Outfall I-005 shall be monitored once per discharge event or once per week when discharging, whichever is more frequent, unless there is no discharge for that week. Total volume of batch and period of discharge shall be reported.
- 6. Hydrazine and Carbohydrazide shall be monitored once per batch by a grab sample during wet lay-up discharges that result from the start-up of a unit following a refueling outage.
- 7. A grab sample shall be taken at the discharge of the steam generator to the discharge canal and the following calculations shall be used to determine the concentration from the discharge canal to the Atlantic Ocean [point of discharge (POD)].

Hydrazine at POD (mg/L) = <u>Steam Generator Flow (MGD) x Blowdown Hydrazine Concentration (mg/L)</u> Once-Through Cooling Water Flow (MGD)

Carbohydrazide at POD (mg/L) = <u>Steam Generator Flow (MGD) x Blowdown Carbohydrazide Concentration (mg/L)</u> Once-Through Cooling Water Flow (MGD)

8. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge stormwater from Internal Outfall I-008 to the intake canal. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

			Effi	ent Limitations	Mon	itoring Requir	ements	
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sampte Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Weekly, when discharging	Calculated	OUI-5	
Solids, Total Suspended	mg/L	Max Max	30.0 100.0	Monthly Average Daily Maximum	Weekly, when discharging	Grạb	OUI-5	

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				Efflu	ient Limitations	Mon	itoring Requi	tements	
ĺ			Max/			Frequency of	Sample	Monitoring	
.	Parameter	Units	Min	Limit	Statistical Basis	Analysis	Туре	Site Number	Notes
	Oil and Grease	mg/L	Max Max	15.0 20.0	Monthly Average Daily Maximum	Weekly, when discharging	Grab	OUI-5	

9. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.8. and as described below:

Monitoring Site Number	Description of Monitoring Site
OUI-5	Storm water discharge prior to entering the intake canal.

10. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge stormwater associated with industrial activity from the Former Oil Storage Area from Internal Outfall 1-06B to the intake canal. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

			Effly	tent Limitations	Mon	itoring Requir	ements	
Parameter	Units	Max/ Min	Limît	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Annually	Calculated	OÚI-3	
Solids, Total Suspended	mg/L.	Max	Report	Daily Maximum	Annually	Grab	OUI-3	
Oil and Grease	mg/L	Max	Report	Daily Maximum	Annually	Grab	OUI-3	

11. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition 1.B.10. and as described below:

Monitoring Site Number	Description of Monitoring Site
OUI-3	Discharge from the former oil storage area prior to entering the intake canal.

12. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge storm water not associated with industrial activity from Internal Outfall I-06C to the mangrove impoundment. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

			EM	uent Limitations	Мо	nitoring Requir	ements	
Parameter	Units	Max/ Min	Limît	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Annually	Calculated	OUI-4	
Oil and Grease	mg/L	Max	Report	Daily Maximum	Annually	Grab	OUI-4	

13. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.12, and as described below:

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Monitoring Site Number	Description of Monitoring Site
OUI-4	Stormwater discharge prior to entering the mangrove impoundment area.

- 14. Discharge of intake screen wash water from Internal Outfäll I-007 is permitted without limitation or monitoring requirements.
- 15. Discharge of storm water and wash-down water consisting of potable water with no chemical additives discharge from Spent Nuclear Fuel Dry Storage Area to the intake canal through Internal Outfall I-06D is permitted without limitations or monitoring requirements.

#### C. Other Limitations and Monitoring and Reporting Requirements

- The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (April 26, 2006)" is available at http://www.dep.state.fl.us/labs/library/index.htm. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:
  - a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;
  - b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and
  - c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

When the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the abovereferenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. [62-4.246, 62-160]

- 2. The permittee shall provide safe access points for obtaining representative influent and effluent samples which are required by this permit. [62-620.320(6)]
- 3. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type on DMR	Monitoring Period	Due Date
Monthly	first day of month - last day of month	28 <sup>th</sup> day of following month
Quarterly	January 1 - March 31	April 28

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	April 1 - June 30	July 28
	July 1 - September 30	October 28
	October 1 - December 31	January 28
Semiannual	January I - June 30	July 28
	July 1 - December 30	January 28
Annual	January 1 - December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge. The permittee may submit either paper or electronic DMR form(s). If submitting paper DMR form(s), the permittee shall make copies of the attached DMR form(s). If submitting electronic DMR form(s), the permittee shall use a Department-approved electronic DMR system.

The electronic submission of DMR forms shall accepted only if approved in writing by the Department. For purposes of determining compliance with this permit, data submitted in electronic format is legally equivalent to data submitted on signed and certified DMR forms.

The permittee shall submit the completed DMR form(s) to the Department by the twenty-eighth (28th) of the month following the month of operation at the addresses specified below:

Florida Department of Environmental Protection Wastewater Compliance Evaluation Section, Mail Station 3551 Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400

And

Florida Department of Environmental Protection Southeast District Office Industrial Wastewater Section 1801 SE Hill Moor Drive, Suite C-204 Port St. Lucie, Florida 34952 (772) 871-7662

#### [62-620.610(18)]

4. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Southeast District Office at the address specified below:

Florida Department of Environmental Protection Southeast District Office Industrial Wastewater Program 1801 SE Hill Moor Drive, Suite C-204 Port St. Lucie, Florida 34952 (772) 871-7662

[62-620.305]

- 5. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. [62-620.305]
- 6. If there is no discharge from the facility on a day when the facility would normally sample, the sample shall be collected on the day of the next discharge. [62-620.320(6)]
- Bypasses subject to General Conditions IX.20 and IX.22 shall be monitored or estimated daily, or as approved by the Department for flow and other parameters required for the specific outfall that is bypassed. Monitoring results shall be reported to the Department.

# PERMITTEE: Florida Power & Light (FPL) FACILITY: St. Lucie Power Plant

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- 8. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which ultimately may be released to waters of the State is prohibited unless specifically authorized elsewhere in this permit. This requirement is not applicable to products used for lawn and agricultural purposes or to the use of herbicides if used in accordance with labeled instructions and any applicable State permit. A permit revision from the Department shall be required prior to the use of any biocide or chemical additive used in the cooling system (except chlorine as authorized elsewhere in this permit) or any other portion of the treatment system which may be toxic to aquatic life. The permit revision request shall include:
  - a. Name and general composition of biocide or chemical
  - b. Frequencies of use
  - c. Quantities to be used
  - d. Proposed effluent concentrations
  - e. Acute and/or chronic toxicity data (laboratory reports shall be prepared according to Section 12 of EPA document no. EPA-821-R-02-012 EP entitled, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters for Freshwater and Marine Organisms, or most current addition.)
  - f. Product data sheet
  - g. Product label

The Department shall review the above information to determine if a major or minor permit revision is necessary. Discharge associated with the use of such biocide or chemical is not authorized without a permit revision by the Department. Permit revisions shall be processed in accordance with the requirements of Chapter 62-620, F.A.C.

- 9. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid. [40 CFR Part 423.12(b)(2)]
- 10. The permittee is authorized to use the following chemicals and biocides as previously approved:

Chemical Name	System Used	
Ammonium Hydroxide	Feedwater, Condensate, Steam Generators	
Carbohydrazide	Steam Generators	
Boric Acid (Boron)	Reactor Coolant (RCS) and Support Systems	
Dimethylamine	Feedwater, Condensate, Steam Generators	
Hydrazine	Feedwater, Condensate, Steam Generators-Small quantities to RCS during cold startups	
Sodium Molybdate	Closed Cooling Systems	
Sodium Nitrite	Closed Cooling Systems	
Tolytriazole	Closed Cooling Systems	
Glutaraldehyde	Closed Cooling Systems	
Isothiazolin	Closed Cooling Systems	
Polyglycol	Closed Cooling Systems	
Sodium Hypochlorite	Circulating Water and Intake Cooling (Auxiliary Equipment Cooling Water)	
Ethanolamine (ETA)	Feedwater, Condensate, Steam Generators	
Klaraid	Liquid Rad Waste System	
Hydrogen Peroxide	RCS	
Zinc Acetate	RCS	
Potassium Hydroxide	Closed Cooling Systems	
Sodium Hydroxide	Closed Cooling Systems	
Lithium Hydroxide	RCS	

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11. The permittee is authorized to use preservative-free wood flour for plugging pinhole leaks in the once through cooling water system condenser.

#### II. SLUDGE MANAGEMENT REQUIREMENTS

- 1. The permitee shall be responsible for proper treatment, management, use, and disposal of its sludge. [62-620.320(6)]
- 2. Storage, transportation, and disposal of sludge/solids characterized as hazardous waste shall be in accordance with requirements of Chapter 62-730, F.A.C. [62-730]
- Vegetation and materials removed from intake screens s must be properly stored onsite until they are disposed in accordance with requirements in Chapter 62-701, F.A.C., and other applicable State and Federal requirements. Storage, transportation, and disposal of sludge/solids characterized as hazardous waste shall be in accordance with requirements of Chapter 62-730, F.A.C. [62-730]

#### **III. GROUND WATER REQUIREMENTS**

Section III is not applicable to this facility.

# IV. ADDITIONAL LAND APPLICATION REQUIREMENTS

Section IV is not applicable to this facility.

## V. OPERATION AND MAINTENANCE REQUIREMENTS

- 1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control. [62-620.320(6)]
- 2. The permittee shall maintain the following records and make them available for inspection on the site of the permitted facility.
  - a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
  - b. Copies of all reports required by the permit for at least three years from the date the report was prepared;
  - c. Records of all data, including reports and documents, used to complete the application for the permit for at least three years from the date the application was filed;
  - d. A copy of the current permit;
  - e. A copy of any required record drawings; and
  - f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules.

[62-620.350]

#### VI. SCHEDULES

- 1. In accordance with section 403.088(2)(e) and (f), Florida Statues, a compliance schedule for this facility is contained in Administrative Order AO022TL which is hereby incorporated by reference.
- 2. The following improvement actions shall be completed according to the following schedule. The Storm water Pollution Prevention Plan (SWPPP) shall be prepared and implemented in accordance with Part VII of this permit.

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Improvement Action	Completion Date
1. Develop and implement SWPPP	18 months from permit issuance.
2. Complete Plan Summary	2 years from permit issuance.
3. Progress/Update Report	3 years, and then annual thereafter.

[62-620.320(6)]

- 3. If the permittee wishes to continue operation of this wastewater facility after the expiration date of this permit, the permittee shall submit an application for renewal no later than one-hundred and eighty days (180) prior to the expiration date of this permit. Application shall be made using the appropriate forms listed in Rule 62-620.910, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C. [62-620.335(1) and (2)]
- 4. Within six months of the completion of both uprate projects for Units 1 and 2, the permittee shall schedule a meeting with the Department to discuss the contents of the aquatic organism return plan in accordance with Condition 1.A.11 and shall submit the plan to the Department six months thereafter. The plan shall be implemented within 24 months subsequent to approval by the Department. However, if the final 316(b) rule for existing facilities prescribes alternative means and schedules than that described above, the permittee shall, within six months after the effective date of the rule, submit to the Department a new plan and schedule for complying with 316(b) requirements.
- The permittee shall notify the Department upon completion of the power uprate for Units 1 and 2. The permittee shall submit a notification letter to the Department at the following addresses:

Florida Department of Environmental Protection Industrial Wastewater Section, Mail Station 3545 2600 Blair Stone Road Tallahassee, Florida 32399-2400

and

Florida Department of Environmental Protection Southeast District Office Industrial Wastewater Program 1801 SE Hill Moor Drive, Suite C-204 Port St. Lucie, Florida 34952

6. No later than 90 days after the effective date of this Order, the Permittee shall prepare and submit for the Department's review and approval a plan of study (Total Residual Oxidants POS) that includes a schedule. The Total Residual Oxidants POS shall be designed and implemented to reaffirm that the discharge from the diffusers meets the total residual oxidants Class III marine water quality standard of 0.1 mg/L. The study shall last no less than 24 months from commencement. The results of the study shall be submitted in a report (Total Residual Oxidants Report) to the Department for review and approval no later than 60 days after the approved Total Residual Oxidants POS completion date.

In the event that the Total Residual Oxidants Report fails to demonstrate that the discharge from the diffusers meets the total residual oxidants Class III marine water quality standard, the permittee shall prepare a feasibility study report (Engineering Report) for the evaluation of engineering options to achieve the water quality standard. The Engineering Report shall be submitted to the Department for review and approval no later than 90 days after the approved Total Residual Oxidants POS completion date. The options shall be ranked based on equal weighting of technical and economic feasibility. The results of the ranking shall be presented in the Engineering Report. In addition, the Engineering Report shall include a plan and schedule for implementing the highest ranked option. The schedule shall include milestones and the completion date. The implementation shall take no longer than 24 months from Department approval.

The permittee shall provide status reports every six months following the approval of the Total Residual Oxidants POS and Engineering Report, until compliance is reaffirmed. The status reports shall document accomplishment of milestones established by the schedules.