

**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 090007-EI  
FLORIDA POWER & LIGHT COMPANY**

**ENVIRONMENTAL COST RECOVERY**

**APRIL 13, 2009**

**TESTIMONY & EXHIBITS OF:**

**R. R. LABAUVE**

**IN SUPPORT OF PETITION FOR APPROVAL  
OF MANATEE TEMPORARY HEATING  
SYSTEM PROJECT FOR ENVIRONMENTAL  
COST RECOVERY**

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**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
**FLORIDA POWER & LIGHT COMPANY**  
**TESTIMONY OF RANDALL R. LABAUVE**  
**DOCKET NO. 090007-EI**

**April 13, 2009**

**Q. Please state your name and address.**

A. My name is Randall R. LaBauve and my business address is 700 Universe Boulevard, Juno Beach, Florida 33408.

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

A. I am employed by Florida Power & Light Company (FPL) as Vice President of Environmental Services.

**Q. Have you previously testified in predecessors to this docket?**

A. Yes, I have.

**Q. What is the purpose of your testimony in this proceeding?**

A. The purpose of my testimony is to present for Commission review and approval FPL's plans for a new environmental compliance project, the Manatee Temporary Heating System Project (the "MTHS Project").

**Q. Have you prepared, or caused to be prepared under your direction, supervision, or control any exhibits in this proceeding?**

A. Yes, I am sponsoring the following exhibits:

- Exhibit RRL-1 – Manatee Heating System Conceptual Location of Pumps and Heater.

- 1       • Exhibit RRL-2 - Florida Department of Environmental Protection  
2           (FDEP) Industrial Wastewater Facility Permit Number FL00001546 for  
3           Plant Riviera (PRV).  
4       • Exhibit RRL-3 – PRV Manatee Protection Plan (MPP).  
5       • Exhibit RRL-4 – U.S. Fish and Wildlife Service letter to FPL.

6   **Q.   Please briefly describe FPL’s proposed project.**

7   **A.**   In September 2008, FPL received a determination of need from this  
8           Commission to undertake a major modernization project at PRV,  
9           which will convert the existing conventional steam units into a highly  
10          efficient, clean-burning, gas-fired combined cycle unit (the  
11          “Modernization Project”) to be named the Riviera Beach Next  
12          Generation Clean Energy Center (RBEC). The proposed activity  
13          under the MTHS Project is to install an electric heating system in  
14          2009, in order to provide a temporary “manatee refuge” by discharging  
15          warm water when necessary into the manatee embayment area until  
16          the PRV is converted to the RBEC. Primary activities integral to the  
17          MTHS Project include installing the pipes, pumps, and heater,  
18          interconnection to the FPL power system, and testing and operating  
19          the system. A conceptual location of the temporary heating system is  
20          included as Exhibit RRL-1.

21   **Q.   Please describe the environmental law or regulation requiring the**  
22          **project.**

23   **A.**   FPL is proposing the MTHS Project in order to help ensure that we  
24          can comply with FPL’s PRV MPP, which is Specific Condition 13 to the

1 Industrial Wastewater Facility (IWWF) Permit Number FL00001546,  
2 issued by the FDEP for the PRV on February 10, 2004. Specific  
3 Condition 13 to the IWWF permit states that "the permittee shall  
4 continue compliance with the facility's Manatee Protection Plan  
5 approved by the Department on December 21, 2000." The IWWF  
6 permit containing Specific Condition 13 is attached as Exhibit RRL-2.  
7 FPL's Manatee Protection Plan is attached as Exhibit RRL-3. Note  
8 that the Manatee Protection Plan refers to "Specific Condition 12,"  
9 which has been renumbered as Specific Condition 13 in the current  
10 IWWF permit.

11

12 Additionally, the Lake Worth Lagoon is considered by the United  
13 States Fish and Wildlife Service ("FWS") as Critical Habitat for the  
14 manatee (42 FR 47840). The manatee is also protected by the Marine  
15 Mammal Protection Act of 1972 (16 U.S.C. 1361, et. seq.), and the  
16 Endangered Species Act of 1973 (16 U.S.C. 1531, et. seq.). On June  
17 24, 2008, the FWS provided comments in a letter to FPL regarding the  
18 Modernization Project. In those comments, the FWS noted that the  
19 Marine Mammal Protection Act and the Endangered Species Act do  
20 not permit incidental takes. The FWS indicated that measures would  
21 be necessary to protect the manatees from cold water impacts during  
22 the transition period of the Modernization Project. A copy of the FWS  
23 letter to FPL is attached as Exhibit RRL-4.

1 **Q. How has FPL complied with Specific Condition 13 to the IWWF**  
2 **Permit in the past?**

3 **A.** Historically, FPL has provided warm water to the manatee embayment  
4 area by discharging a portion of the once-through cooling water  
5 discharge into the manatee embayment area. The remainder of the  
6 once-through cooling water is discharged approximately 1900 feet  
7 from the plant into the Lake Worth Lagoon.

8 **Q. What is a manatee embayment area?**

9 **A.** The term "manatee embayment" refers to the discharge area  
10 previously used for PRV Units 1 and 2 (retired in 1983 and 1991,  
11 respectively) and now used to discharge a portion of the once-through  
12 cooling water discharge from Units 3 and 4. The embayment opens  
13 directly into the Lake Worth Lagoon.

14 **Q. What is the significance of FPL providing warm water to the**  
15 **embayment area?**

16 **A.** The Florida manatee, a subspecies of the West Indian manatee found  
17 only in the southeastern United States, is listed as endangered under  
18 both the U.S. Endangered Species Act and Florida state law. Most  
19 manatees congregate at confined warm-water refuges when coastal  
20 water temperatures begin to fall below 68°F. The exact thresholds at  
21 which manatees succumb to cold and die are uncertain and can vary  
22 between individuals. However, when extremely cold winter  
23 temperatures occur, large numbers of manatees may die or have their  
24 health impaired. Many of the natural warm water habitats historically

1 used by manatees are no longer available to them. The outflows from  
2 power plants, like the PRV, have provided a valuable substitute for  
3 these lost natural resources.

4  
5 The entire Lake Worth Lagoon is considered by the United States Fish  
6 and Wildlife Service as Critical Habitat for the manatee (42 FR 47840).  
7 Manatees are known to inhabit the Lake Worth Lagoon year-round  
8 and they congregate at the PRV embayment area during colder  
9 temperatures because of the warm water discharged from the plant.

10 **Q. How many manatees can be found in Lake Worth Lagoon and the**  
11 **embayment area?**

12 **A.** During a survey conducted by the Florida Fish and Wildlife  
13 Conservation Commission in February 2007, 237 manatees were  
14 observed gathered near the existing PRV (PBCERM, 2008).

15  
16 Aerial surveys for manatees were conducted by Mote Marine  
17 Laboratory on behalf of FPL in February 2007. On February 7, 2007,  
18 288 manatees were observed in the vicinity of PRV, including 25  
19 calves. On February 17, 2007, 141 manatees were observed,  
20 including 11 calves.

21  
22 In the winter of 2008-2009, Mote Marine Laboratory conducted three  
23 surveys at PRV. On January 18, 2009, 183 manatees were observed,

1 on January 24, 2009, 454 manatees were observed and on February  
2 6, 2009, 388 manatees were observed.

3 **Q. Why does FPL now need a different heating source for PRV?**

4 **A.** Implementing the Modernization Project will require that the existing  
5 units be dismantled and substantially rebuilt. During this construction  
6 period, the units will not be available to provide warm water for  
7 compliance with the MPP. The current schedule for the Modernization  
8 Project requires that the existing conventional steam units be taken  
9 out of service no later than 2011 to begin the conversion.

10 **Q. Please describe the temporary heating system.**

11 **A.** The temporary heating system will include a 30-million Btu per hour  
12 electric heater along with pumps, piping, and electrical equipment.  
13 The intake piping and pumps for the system will be installed in the  
14 existing Units 1 and 2 intake structure located approximately 500 feet  
15 north of the system discharge. Seawater will be pumped through the  
16 electric heater and discharged into the manatee embayment area  
17 when the ambient water temperature falls below 61°F. The water  
18 depth in this area is approximately 4 to 6 feet. The temporary heating  
19 system is predicted to provide approximately 0.9 acres of water at or  
20 above 68°F during conditions under which the present MPP requires  
21 that FPL endeavor to provide heated water for manatee protection.

22 **Q. How did FPL determine the size of the electric heater?**

1    **A.**    To determine the size of the heater required to comply with the MPP  
2           obligation, FPL retained an environmental services firm to build a  
3           computer model to calculate the minimum thermal outputs required.

4    **Q.**    **Why does the temporary heating system need to be installed in**  
5           **2009?**

6    **A.**    While the existing units would not have to be taken out of service until  
7           2011, FPL has projected that it can save approximately \$10 million in  
8           O&M costs for PRV during 2009 and 2010 by keeping the existing  
9           units in inactive reserve status until they are dismantled for the  
10          Modernization Project. FPL's rate case Minimum Filing Requirements  
11          (MFRs) reflect these projected savings. Inactive reserve status would  
12          allow the units to be returned to service if major unit outages, changes  
13          in load growth or other factors indicated a greater than expected need  
14          for them to meet reserve requirements, but the units could not be  
15          returned to service quickly enough to respond to a sudden cold-  
16          weather event that required warming water in the manatee  
17          embayment area.

18  
19          In short, the Modernization Project dictates that FPL have an  
20          alternative heating source at PRV by 2011, but the cost savings of  
21          keeping the existing units in inactive reserve status can be achieved  
22          only if an alternative heating source is put in place in 2009, in time for  
23          the Winter of 2009-2010, which may require that the embayment area  
24          be warmed. The MTHS Project will help to avoid potential adverse



1 impacts from cold water to manatees congregating at PRV's manatee  
2 embayment area during the annual period from November 15 to March  
3 31.

4 **Q. Please explain why FPL decided to put PRV into inactive reserve**  
5 **status.**

6 **A.** The current economic slowdown has resulted in FPL projecting lower  
7 electric load demands and lower electricity sales. FPL reviewed its  
8 generation operating fleet and decided to temporarily place some of its  
9 older, less efficient units, including PRV, into inactive reserve status as  
10 a cost-savings measure. This means FPL will be reducing daily  
11 staffing at, and operations and maintenance expenses for, these units,  
12 while still keeping them ready with adequate notice to respond to  
13 significant changes in projected demand increases, as well as to  
14 return PRV to normal operations when needed to satisfy future load  
15 growth. FPL will perform the required normal maintenance at the  
16 inactive reserve units over a longer time horizon, thereby reducing  
17 costs while at the same time ensuring that the plant can resume  
18 operations efficiently when needed.

19 **Q. Why can't the PRV units be returned from inactive reserve status**  
20 **quickly enough to meet MPP requirements during 2009-2010?**

21 **A.** FPL's Power Generation Division experts estimate that to return PRV  
22 to an operating condition requires at least thirty (30) days.  
23 Furthermore, an extended period of plant inactivity at the aged PRV

1           could increase the difficulties required to bring it to an active status for  
2           purposes of warming the water.

3

4           With the PRV units in inactive reserve status, FPL cannot depend on  
5           them to meet the obligation to provide a warm water refuge for  
6           manatees. Even with advanced notice of inclement weather, there  
7           would not be enough time to bring the PRV units back online in time to  
8           provide warm water. Furthermore, the cost of trying to accelerate the  
9           return of the units to service from inactive reserve status could be  
10          substantial.

11   **Q.    Could FPL return PRV to active service status and run it during**  
12    **the winter of 2009 to provide warm water for manatees instead of**  
13    **installing the temporary heating system in 2009?**

14    **A.**    Yes. FPL could prepare PRV at the start of the winter season to be  
15          available for operation on short notice, but this would involve a  
16          significant cost for personnel and maintenance. Keep in mind that  
17          FPL inevitably must purchase a temporary heating system when the  
18          existing PRV units are dismantled to implement the Modernization  
19          Project. Therefore, by incurring the costs necessary to make PRV  
20          available during wintertime, FPL would only be deferring the cost of  
21          the temporary heating system for a couple of years, not avoiding those  
22          costs. The annual costs for the temporary heating system in years  
23          2009 and 2010 are much lower than the staffing and maintenance

1 expenditures that would be necessary to keep the units available just  
2 for manatee heating during these winters.

3 **Q. What conclusions did FPL reach regarding the alternatives for**  
4 **providing warm water to manatees at PRV?**

5 **A.** As I discussed earlier, FPL will eventually need a temporary heating  
6 system at PRV because there will be no other viable source of warm  
7 water for manatees during the construction of the Modernization  
8 Project. Accelerating the installation of the heating system, however,  
9 will allow FPL and its customers to enjoy approximately \$10 million in  
10 savings by keeping the existing units in inactive reserve, which is a  
11 savings of more than double the entire cost of the temporary heater.  
12 Additionally, the temporary heating system is less costly to operate in  
13 comparison to operating PRV out of economic dispatch just for water  
14 heating. It can thus be reasonably concluded that the temporary  
15 heating system is the better alternative for FPL to pursue, resulting in  
16 the most cost effective means to produce warm water for the  
17 manatees and the least burdensome on FPL's customers.

18  
19 Also, other impacts support the decision to install the temporary  
20 heating system. From an environmental impact basis, installing the  
21 temporary heating system allows FPL to respond quicker to weather  
22 threats to manatees since the heating system is as close to pushing a  
23 button for an immediate response as possible. From a resource  
24 impact basis, operating the temporary heating system requires less

1 fuel and lower O&M costs to accomplish the same objective as  
2 operating PRV.

3

4 Analysis of these alternatives supports a conclusion that the prudent  
5 course of action is to allow PRV to remain in inactive reserve status  
6 and to install a heating system for use during the five winter seasons  
7 between now and the expected RBEC commercial operation date of  
8 June 2014.

9 **Q. How did FPL calculate the approximate \$10 million cost saving**  
10 **from placing PRV into inactive reserve status?**

11 **A.** FPL calculated PRV's average annual total base O&M expense from  
12 2000 to 2007 to be approximately \$7.1 million. The cost of  
13 maintaining the plant in inactive reserve status is approximately \$2.7  
14 million and \$1.5 million in 2009 and 2010, respectively. Thus, savings  
15 of \$4.4 million in 2009 and \$5.6 million in 2010 accrue to FPL's  
16 customers.

17 **Q. When will FPL begin the MTHS Project?**

18 **A.** Due to the prescribed annual period for providing warm water and the  
19 time required to design, purchase, and install the heating system and  
20 perform integral activities such as making the interconnection to the  
21 FPL power system, the MTHS Project will begin immediately. Upon  
22 the commercial operation of the RBEC (scheduled for 2014), the  
23 heating system will be dismantled and removed because it will no

1 longer be needed. The modernized combined cycle unit will provide a  
2 regular source of warm water to comply with the MPP.

3 **Q. Has FPL estimated the cost of the proposed MTHS Project?**

4 **A.** Estimated capital costs for the temporary heating system in 2009 are  
5 \$4.7 million. These estimates include expenditures for the equipment,  
6 design and engineering of the system, labor for installation, and  
7 interconnection to the FPL power system. Because FPL does not  
8 expect to need the temporary heating system once the modernized  
9 combined cycle unit goes into service and plans to dismantle the  
10 system at that time, FPL proposes to amortize the system over 56  
11 months (i.e., from November 2009 through June 2014). FPL will incur  
12 removal costs for the temporary heating system in 2014, which will be  
13 offset by any salvage value that FPL is able to obtain for the system.  
14 Because FPL cannot accurately predict either the removal costs or the  
15 salvage value at this time, we have assumed that they net to zero for  
16 the purpose of the current cost projections and will true up the  
17 projections later as better information becomes available. Of course,  
18 any surplus of salvage value over removal costs would be returned to  
19 customers via the Environmental Cost Recovery Clause (ECRC).

20  
21 After installation and commissioning is complete, FPL expects to incur  
22 O&M costs associated with materials and supplies necessary to  
23 maintain the heating system. FPL's annual O&M estimates for 2010  
24 through 2014 are \$50,000. These projected O&M costs do not include

1 the energy costs to operate the temporary heating system. FPL  
2 cannot predict how often the system will operate, however, the energy  
3 costs will not be significant nor will they be recovered through the  
4 ECRC process.

5 **Q. Has FPL estimated its 2009 ECRC recovery amount for the MTHS**  
6 **Project?**

7 **A.** FPL plans to place the temporary heating system into service by early  
8 November 2009. Based on that in-service date, FPL has projected  
9 approximately \$234,000 in amortization expense and return on  
10 investment associated with the temporary heating system during the  
11 remainder of 2009.

12 **Q. Please describe the measures FPL has taken to ensure that costs**  
13 **of the MTHS Project have been minimized.**

14 **A.** FPL's Engineering and Construction Division has retained an  
15 engineering firm to perform a study to identify the most cost-effective  
16 approach to providing a temporary heating system. Using a  
17 performance specification for the recommended equipment, FPL's  
18 Integrated Supply Chain (ISC) group, participating in the MTHS  
19 Project, will solicit bids from multiple suppliers to determine the source  
20 providing the overall best value. The ISC group provides enterprise-  
21 wide leadership, direction, and operation of a fully integrated supply  
22 chain supporting the procurement, materials management, and logistic  
23 needs of FPL and the MTHS Project. ISC's objective is to drive down  
24 costs to FPL and ensure the delivery of the highest quality goods and

1 services. Well-established corporate policies and procedures dictate  
2 that for the MTHS Project, the materials supply contract and the  
3 construction contract will be competitively bid.

4

5 FPL's Project Controls group has established a scope, budget, and  
6 schedule to meet the needs of the MTHS Project. Project Controls is  
7 also responsible for tracking all MTHS Project costs through various  
8 approval processes, procedures, and databases.

9 **Q. Is FPL also considering a temporary heating system at the Cape**  
10 **Canaveral Plant?**

11 **A.** Yes. The permits for the Cape Canaveral Plant have similar  
12 requirements for maintaining water temperatures to protect manatees.  
13 FPL expects to make a decision on how to provide temporary water  
14 heating at the Cape Canaveral Plant this Fall and, if a temporary  
15 heating system is required, may petition to amend the MTHS Project  
16 to include the costs for that system as well.

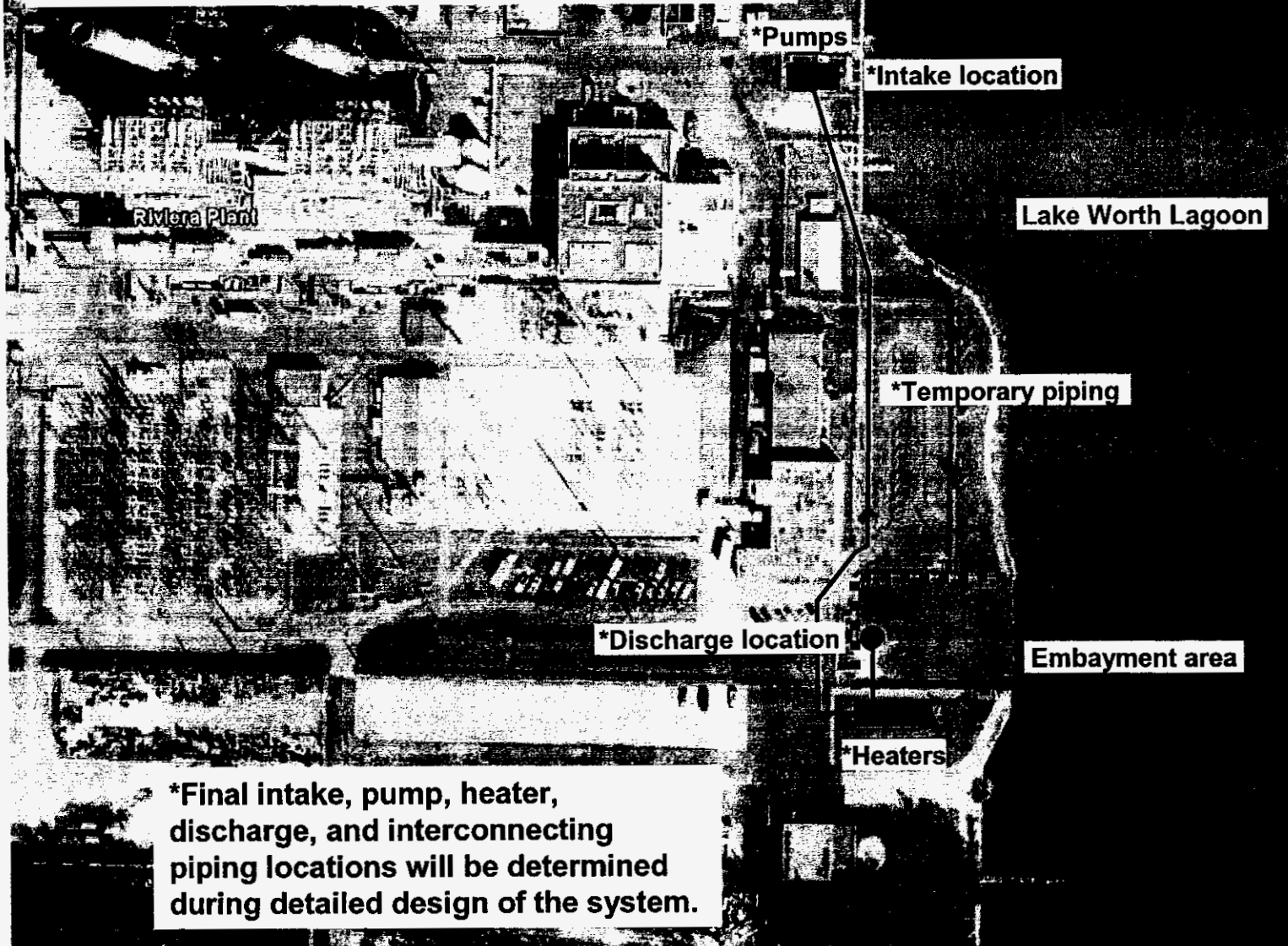
17 **Q. Is FPL recovering through any other mechanism the costs for the**  
18 **MTHS Project for which it is petitioning for ECRC recovery?**

19 **A.** No.

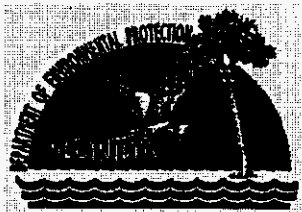
20 **Q. Does this conclude your testimony?**

21 **A.** Yes, it does.

**Riviera Beach Next Generation Clean Energy Center  
Manatee Heating System  
Conceptual Location of Pumps and Heaters**







Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

## NOTICE OF PERMIT

### CERTIFIED MAIL

In the Matter of an  
Application for Permit by:  
Florida Power & Light Company  
200-300 Broadway  
Riviera Beach, Florida 33404

DEP File # FL00001546-003- IW1S/NR

Attention: Mr. Rick Blomgren

Enclosed is Permit Number FL00001546 to Florida Power & Light Company, 200-300 Broadway, Riviera Beach, FL 33404, to operate wastewater treatment and effluent disposal facilities for Units 2, 3 and 4 of the FPL Riviera Beach Plant located in Palm Beach 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

A handwritten signature in cursive script, appearing to read "Mimi Drew".

Mimi Drew  
Director  
Division of Water Resource Management

2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
(850) 245-8336

"More Protection, Less Process"

Printed on recycled paper.

Florida Power & Light Company  
Riviera Plant  
Facility ID Number FL00001546

Page 2 of 2

**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 02-03-04 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.

G. Shields      02-03-04  
(Clerk)                      (Date)

Copies furnished to:

Chairman, Board of Palm Beach County Commissioners  
Jill Watson - FPL Juno Beach  
Betsy Hewitt - DEP Tallahassee  
Tim Powell - DEP West Palm Beach

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400

SECOND AMENDMENT TO THE FACT SHEET  
FOR APPLICATION FOR  
PERMIT TO DISCHARGE TREATED WASTEWATER  
TO WATERS OF THE STATE

Permit Number: FL0001546  
Permit Writer: Bala Nori

Application Date: August 19, 2002  
Application No: FL0001546-003-IW1S/NR  
Notice of Intent Issued: November 5, 2003;

**1. SYNOPSIS OF APPLICATION**

- A. Name and Address of Applicant  
Florida Power & Light Company  
200- 300 Broadway  
Riviera Beach, Florida 33404  
For:  
Riviera Power Plant  
200-300 Broadway  
Riviera Beach, FL 33404

**2. MINOR CHANGES TO THE PROPOSED PERMIT**

The following changes are based on comments from the Permittee during November and December 2003. They are intended to correct minor errors in the Proposed Permit, and provide non-substantive changes in language to clarify certain permit conditions.

1. Item I.E.9. was reworded to clarify monitoring requirements in the event of a bypass.
2. Item I.E.14., stormwater monitoring requirements for discharge from diked petroleum storage areas which were in the Draft Permit but were deleted from the Proposed Permit, were reinserted into the Final Permit. The requirements are in the permit because the stormwater discharges are not covered under the Multi-Sector General Permit (MSGP), or another individual permit.
3. Items II. (Industrial Sludge Management Requirements) and IV. (Other Land Application Requirements). In the Proposed Permit, requirements for both industrial sludge management and maintenance of settling and percolation basins were all located in Item II. In the Final Permit, Item II. includes only the specific requirements for industrial sludge management, while requirements for settling and percolation basin maintenance have been moved to Item IV.

**3. SIGNIFICANT CHANGES TO PERMIT CONDITIONS**

The changes to permit conditions described herein are not considered significant because they do not change effluent limitations, monitoring, or affect the quantity or quality of discharge.

**STATE OF FLORIDA  
INDUSTRIAL WASTEWATER FACILITY PERMIT**

**PERMITTEE:**  
Florida Power & Light Company  
200-300 Broadway  
Riviera Beach, Florida 33404

**PERMIT NUMBER:** FL0001546  
**PA FILE NUMBER:** FL0001546-003-IW1S/NR  
**ISSUANCE DATE:** February 10, 2004  
**EXPIRATION DATE:** February 09, 2009

**RESPONSIBLE AUTHORITY:**

Mr. Rick Blomgren  
Plant General Manager

**FACILITY:**

FPL-Riviera Plant  
200-300 Broadway  
Riviera Beach, FL 33404  
Palm Beach County

Latitude: 26° 45' 55" N Longitude: 80° 3' 10" W

This permit is issued under the provisions of Chapter 403, Florida Statutes, and applicable rules of the Florida Administrative Code and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. The above named permittee is hereby authorized to operate the facilities shown on the application and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The plant consists of three steam electric power generating units with a total name plate rating of 673 MW. Plant fuel is natural gas and oil. The plant has a Once Through Cooling Water (OTCW) system that uses water from Lake Worth, a coastal marine waterbody. The OTCW is intermittently chlorinated for bio-fouling control and dechlorinated prior to discharge. Discharges of OTCW and Auxiliary Equipment Cooling Water (AECW) are discharged through a submerged pipeline approximately 2,000 feet in length via Lake Worth to the Intracoastal Waterway.

**WASTEWATER TREATMENT:**

All wastewaters except screen washwater from the operation of Units 3 and 4 are treated prior to discharge. Once through cooling water Auxiliary Equipment Cooling Water are intermittently chlorinated and dechlorinated using sodium bisulfite prior to discharge. Other wastewaters include water treatment plant effluent (reverse osmosis concentrate, softener regeneration, and filter backwash) low volume wastes and metal cleaning wastes. Wastewater treatment for curbed equipment areas consists of oil separation. Wastewater is routed to two solids settling basins. The solids settling basins are lined with HDPE membrane liners. Wastewater from the solids settling basins discharges to three unlined percolation/evaporation ponds.

**EFFLUENT DISPOSAL:**

**Surface Water Discharge:**

An existing discharge to Intracoastal Waterway [Lake Worth] (Class III Marine waters), Outfall D-012/D0182, The Once Through Cooling Water and auxiliary equipment cooling water outfall line is located approximately at latitude 26° 45'52" N/ 26° 45'57" N longitude 80° 03'03" W/ 80° 03'03" W.

**PERMITTEE:**

Florida Power & Light Company  
200-300 Broadway Company  
Riviera Beach, Florida 33404

An existing discharge to Intracoastal Waterway [Lake Worth] (Class III Marine waters), Outfall D-013/D0183. The Once through cooling water and auxiliary equipment cooling water outfall line is located approximately at latitude 26° 45'52 " N/26° 45'52 " N, longitude 80°03 '02" W.

An existing discharge to Intracoastal Waterway [Lake worth] (Class III Marine waters), Outfall D-014/D0184. The Once through cooling water and auxiliary equipment cooling water outfall line is located approximately at latitude 26°45'52" N, longitude 80°03'02" W.

An existing discharge to Intracoastal Waterway [Lake Worth] (Class III Marine waters), Outfall D-0163. The Boiler blowdown from Unit 3 to the OTCW intake wells and then to the Intracoastal Waterway.[Lake Worth] outfall line is located approximately at latitude 26°46'00" N, longitude 80°03'09" W.

An existing discharge to Intracoastal Waterway [Lake Worth] (Class III Marine waters), Outfall D-0164. The Boiler blowdown from Unit 4 to intake well of OTCW and then to the Intracoastal Waterway outfall line is located approximately at latitude 26°46'00" N, longitude 80°03'09" W.

An existing discharge to Inter Coastal Waterway [Lake Worth] (Class III Marine waters), Outfall D-009. The Intake Screen Washwater to Intracoastal Waterway outfall line is located approximately at latitude 26°45'59" N, longitude 80°03'03" W.

**Land Application:**

An existing 0.05 MGD, projected average flow rate land application system Outfall R-001 consisting of an unlined percolation pond designated Basin EP-1, discharging to Class G-II ground water, and located approximately at latitude 26° 45' 53" N, longitude 80° 03' 13" W.

An existing 0.05 MGD, projected average flow rate land application system Outfall R-002 consisting of an unlined percolation pond designated Basin EP-2, discharging to Class G-II ground water, and located approximately at latitude 26° 45' 53" N, longitude 80° 03' 14" W.

An existing 0.0003 MGD, projected average flow rate, land application system (Outfall R-003) consisting of an unlined percolation pond designated Basin EP-3, discharging to Class G-II ground water, and located approximately at latitude 26° 45' 55" N, longitude 80° 03' 15" W.

**IN ACCORDANCE WITH:** The limitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 3 through 23 of this permit.

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**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 from Outfall D-012/D-0182 Once-Through Non-Contact Cooling Water and Auxiliary Equipment Cooling Water from Unit 2 to the Intracoastal Waterway (Lake Worth).

a. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Instantaneous Maximum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	N/A	Daily	Pump logs	INT-1
Temperature of Discharge (°F)	Report, see LA.1.d.	Report	N/A	6/Day	Recorder	EFF-1
Temp. Diff. Between Intake and Discharge (°F)	Report, see LA.1.d.	Report	N/A	6/Day	Calculated	EFF-1

b. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.1 and as described below:

Sample Point	Description of Monitoring Location
INT-1	Plant intake for Unit 2
EFF-1	Outlet corresponding to Unit 2 prior to discharging to receiving waters or mixing with other waste streams.

c. The discharge of TRO from the chlorination of D0012 or D0182 is not authorized to waters of the state by this permit.

d. Discharge from D-0012 is subject to the limitations established by Rule 62-302.520(1), F.A.C.

2. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall D-013/D-0183 Once-Through Cooling Water and Auxiliary Equipment Cooling Water from Unit 3 to the Intracoastal Waterway (Lake Worth).

a. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Instantaneous Maximum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	N/A	Daily	Pump logs	INT-2
Temp. Diff. Between Intake and Discharge (°F)	Report, see LA.2.f.	Report	N/A	6/Day	Calculation	EFF-2

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Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Instantaneous Maximum	Monitoring Frequency	Sample Type	Sample Point
Temperature of Discharge (°F)	Report, see LA.2.f	Report	N/A	6/Day	Recorder	EFF-2
Oxidants, Total Residual (MG/L)	N/A	N/A	0.01 <sup>1,2</sup>	1/Week	Multiple Grabs <sup>3</sup>	EFF-4
Chlorination Duration AECW/ (MINUTES)	Report	1440	N/A	Daily	Logs	INT-2
Chlorination Duration OTCW/ (MINUTES)	Report	120	N/A	Daily	Logs	INT-2

- b. Effluent samples shall be taken at the monitoring site locations listed in permit condition LA.2. and as described below:

Sample Point	Description of Monitoring Location
INT-2	Plant intake for Unit 3
EFF-2	Outlet corresponding to Unit 3 prior to discharging to receiving waters or mixing with other waste streams.
EFF-4	The combined discharge of AECW and OTCW at the seal well corresponding to Unit 3

- c. Limitations and monitoring requirements for TRO are not applicable for any week in which chlorine is not added to Unit 3.  
 d. Discharge from D-0013 is subject to the limitations established by Rule 62-302.520(1), F.A.C.

<sup>1</sup> The discharge shall comply with a TRO limitation of 0.026 mg/l until the Permittee notifies the Department that the chlorination optimization study described in Section VI.4. of this permit has been completed, or until two years following issuance of this permit, whichever occurs first. At such time the discharge shall comply with the TRO limitation of 0.01 mg/l.

<sup>2</sup> The facility is authorized a mixing zone for TRO encompassing a circular area of 125,600 m<sup>2</sup> centered on the POD. Water Quality Standards (WQS) shall be achieved at the edge of the mixing zone. When the Permittee notifies the Department that the chlorination optimization study described in Section VI.4. of this permit has been completed, or two years following issuance of this permit, whichever occurs first, the mixing zone for TRO shall be eliminated and the limitation of 0.01 mg/l, which is the WQS, shall be applicable at the POD, as monitored at EFF-4.

<sup>3</sup> Multiple grabs shall consist of grab samples collected at approximately the beginning, middle, and end of the chlorination period.

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3. 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 Cooling Water and Auxiliary Equipment Cooling Water from Outfall D-014/D0184.
- a. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Instantaneous Maximum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	N/A	Daily	Pump logs	INT-3
Temp. Diff. Between Intake and Discharge (°F)	Report, see LA.3.f	Report	N/A	6/Day	Calculated	EFF-3
Temperature of Discharge (°F)	Report, see LA.3.f	Report	N/A	6/Day	Recorder	EFF-3
Oxidants, Total Residual (MG/L)	N/A	N/A	0.01 <sup>1,2</sup>	1/Week	Multiple Grabs <sup>3</sup>	EFF-5
Chlorination Duration AECW (MINUTES)	Report	1440	N/A	Daily	Logs	INT-3
Chlorination Duration OTCW (MINUTES)	Report	120	N/A	Daily	Logs	INT-3

- b. Effluent samples shall be taken at the monitoring site locations listed in permit condition LA.3 and as described below:

Sample Point	Description of Monitoring Location
INT-3	Plant intake for Unit 4
EFF-3	Outlet corresponding to Unit 4 prior to discharging to receiving waters or mixing with other waste streams.
EFF-5	The combined discharge of AECW and OTCW at the seal well corresponding to Unit 4

- c. Limitations and monitoring requirements are not applicable for any week during which chlorine is not added to Unit 4.
- d. Discharge from D-0014 is subject to the limitations established by Rule 62-302.520(1), F.A.C.

<sup>1</sup> The discharge shall comply with a TRO limitation of 0.026 mg/l until the Permittee notifies the Department that the chlorination optimization study described in item VI.4. of this permit has been completed, or until two years following issuance of this permit, whichever occurs first. At such time the discharge shall comply with the TRO limitation of 0.01 mg/l.

<sup>2</sup> The facility is authorized a mixing zone for TRO encompassing a circular area of 125,600 m<sup>2</sup> centered on the POD. Water Quality Standards (WQS) shall be achieved at the edge of the mixing zone. When the Permittee notifies the Department that the chlorination optimization study described in Section VI.4. of this permit has been completed, or two years following issuance of this permit, whichever occurs first, the mixing zone for TRO shall be eliminated and the limitation of 0.01 mg/l, which is the WQS, shall be applicable at the POD, as monitored at EFF-5.

<sup>3</sup> Multiple grabs shall consist of grab samples collected at approximately the beginning, middle, and end of the chlorination period.



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4. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Boiler Blowdown from Outfall D-0163.

a. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Instantaneous Maximum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	N/A	Semiannually	Calculated	EFF-6
Oil and Grease (MGL)	15.0	20.0	N/A	Semiannually	Grab	EFF-6
Solids, Total Suspended (MGL)	30.0	100.0	N/A	Semiannually	Grab	EFF-6
Hydrazine (MGL)	N/A	N/A	0.30	Semiannually	Grab	EFF-6

b. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.4 and as described below:

Sample Point	Description of Monitoring Location
EFF-6	Within boiler drum, flash tank or other location prior to discharge to receiving waters or mixing with any other streams from Unit 3.

5. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Boiler Blowdown from Outfall D-0164.

a. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	N/A	Semiannually	Calculated	EFF-7
Oil and Grease (MGL)	15.0	20.0	N/A	Semiannually	Grab	EFF-7
Solids, Total Suspended (MGL)	30.0	100.0	N/A	Semiannually	Grab	EFF-7
Hydrazine (MGL)	N/A	N/A	0.30	Semiannually	Grab	EFF-7

b. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.5 and as described below:

Sample Point	Description of Monitoring Location
EFF-7	Within boiler drum, flash tank or other location prior to discharge to receiving waters or mixing with any other waste streams from Unit 4.

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6. 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. Underground Infection Control Systems**

This section is not applicable to this facility.

**C. Land Application Systems**

a. 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, storm water, boiler make up water treatment wastewater, equipment area floor drains, curbed water treatment area floor drains, fuel oil burner pump and unloading equipment area drainage and low volume and metal cleaning wastewater to Land Application System R-001, a percolation pond designated Basin EP-1, R-002, a percolation pond designated Basin EP-2 and R-003, a percolation pond designated Basin EP-3. Discharge into Basins EP-1, 2, and 3 is permitted without limitations and without monitoring, except as follows. The Permittee shall monitor discharge flow into Basins 1, 2, and 3, and shall maintain a record of the monthly average discharge into each basin. Monitoring and limitations on discharge from Basins EP-1, 2, and 3 to ground water are addressed in item III.B. of this permit.

**D. Other Methods of Disposal or Recycling**

There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by this permit.

**E. 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 in accordance with Rule 62-4.246, Chapter 62-160, and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantification limits), which is titled "Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water", dated June 21, 1996, is available from the Department on request. 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 PQL 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 a PQL, which is equal to or less than the applicable water quality criteria stated in Chapter 62-302 FAC; and
- c. If the PQLs 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 PQL shall be used.

Where the analytical results are below method detection or practical quantification 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. 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. However, where necessary, the permittee may request approval for alternative methods or for alternative MDLs and PQLs for any approved analytical method, in accordance with the criteria of Rules 62-160.520 and .530, F.A.C.

2. 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

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effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Southeast District Office 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	DMR 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 1 – June 30 July 1 – September 30 October 1 – December 31	April 28 July 28 October 28 January 28
Semiannual	January 1 – June 30 July 1 – December 31	July 28 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 shall make copies of the attached DMR form(s) and shall submit the completed DMR form(s) to the Department at the address specified below:

Florida Department of Environmental Protection  
Wastewater Compliance Evaluation Section, Mail Station 3551  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

3. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications, shall be submitted to or reported to the Southeast District Office at the address specified below:

Southeast District Office  
400 N. Congress Ave., Suite 200  
West Palm Beach, FL33416

Phone Number – (561) 681-6600  
FAX Number - (561) 681-6766 (All FAX copies shall be followed by original copies.)

4. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.
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-Cl E. or 4500 Cl G., respectively, Standard Methods for the examination of Water and Waste water, 18<sup>th</sup> Edition (or most current edition).
6. The permittee shall provide safe access points for obtaining representative samples which are required by this permit.
7. If there is no discharge from the facility on a day scheduled for sampling, the sample shall be collected on the day of the next discharge.
8. There shall be no discharge of polychlorinated biphenyl compounds.
9. Bypasses subject to General conditions VIII.20 and VIII.22 shall be monitored or estimated daily, or as approved by the Department for flow and other parameters required for the specific outfall which is bypassed. Monitoring results shall be reported to the Department.

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10. 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 in accordance with Rules 62-302.500(1)(a) and 62-302.530(50)(b), F.A.C. Any such discharges to water of the State shall be reported to the Department when submitting DMRs.
11. 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 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, 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 substantial or minor permit revision is necessary. Discharge associated with the use of such biocide or chemical except Chlorine or Hydrazine as authorized elsewhere in this permit 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.

12. Discharge of any waste resulting from the combustion of toxic, hazardous, or metal cleaning wastes to any waste stream which ultimately discharges to waters of the State is prohibited, unless specifically authorized elsewhere in this permit.
13. The permittee shall continue compliance with the facility's Manatee Protection Plan approved by the Department on December 21, 2000.
14. The permittee is authorized to discharge storm water from diked petroleum storage or handling areas, provided the following conditions are met:

Such discharges shall be limited and monitored by permittee as specified below:

1. The facility shall have a valid Spill Prevention Control and Countermeasure Plan (SPCC) Plan pursuant to 40 CFR Part 112.
2. 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.
3. Monitoring records shall be maintained in the form of a log and shall contain the following information, as minimum:
  - a. Date and time of discharge;
  - b. Estimated volume of discharge;
  - c. Initials of person making visual inspection and authorizing discharge; and
  - d. Observed conditions of storm water discharged.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil sheen at any time.

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**II. Industrial Sludge Management Requirements**

1. The 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.

**III. Ground Water Monitoring Requirements**

**A. Construction Requirements**

1. This section is not applicable to this facility.

**B. Operational Requirements**

1. During the period of operation authorized by this permit, the permittee shall sample ground water in accordance with this permit and the approved ground water monitoring plan prepared under Rule 62-522.600, F.A.C.
2. The following monitoring wells shall be sampled for Well Group For: percolation pond, Land Application System R-001, R-002 and R-003:

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Depth (Feet)	Aquifer Monitored	New or Existing
MWB-01	RI-MW-1 (previous intermediate well); approximately 20 feet east of the center of the eastern ends of the Solids Settling Basins.	22.25	Surficial	Existing
MWI-01	OB-5R (previous background well; relocation of previous OB-5); approximately 150 feet west of the center of the western ends of the Solids Settling Basins.	15	Surficial	Existing
MWC-01	OB-6; approximately 80 feet south of the center of the southern boundary for the south Solids Settling Basin SSB-2.	19.25	Surficial	Existing

MWB = Background; MWI = Intermediate; MWC = Compliance, MWP = Piezometer

3. The monitor wells specified in Condition III.B.2 shall be sampled for the parameters listed below:

Parameter Name	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Water Level Relative to MSL	Report	FEET	Measured	Quarterly
Solids, Total Dissolved (TDS)	Report	MG/L	Grab	Quarterly
PH	Report	SU	In-situ	Quarterly
Chloride (as Cl)				
Sulfate, Total				
Iron, Total Recoverable				
Sodium, Total Recoverable	160	MG/L	Grab	Quarterly
Arsenic, Total Recoverable	0.05	MG/L	Grab	Semiannually
Chromium, Total Recoverable	0.1	MG/L	Grab	Semiannually
Copper, Total Recoverable	Report	MG/L	Grab	Semiannually

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Parameter Name	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Manganese, Total Recoverable	Report	MG/L	Grab	Semiannually
Nickel, Total Recoverable	0.1	MG/L	Grab	Semiannually
Silver, Total Recoverable	Report	MG/L	Grab	Semiannually
Zinc, Total Recoverable	Report	MG/L	Grab	Semiannually
Oil and Grease	Report	MG/L	Grab	Semiannually

4. A zone of discharge is established for R-001, R-002 and R-003, more specifically described as follows: The zone of discharge extends horizontally along the ground surface to the property line, and vertically to the base of the surficial aquifer.
5. The permittee's discharge to ground water shall not cause a violation of water quality standards for ground waters at the boundary of the zone of discharge in accordance with Rules 62-520.400 and 62-520.420, F.A.C.
6. The permittee's discharge to ground water shall not cause a violation of the minimum criteria for ground water specified in Rule 62-520.400, F.A.C., within the zone of discharge.
7. If the concentration for any constituent listed in Permit Condition III.B.3, in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative natural background quality shall be the prevailing standard.
8. Water levels shall be recorded prior to evacuating the well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NGVD allowable) at a precision of plus or minus 0.1 feet.
9. Ground water monitoring wells shall be purged prior to sampling to obtain a representative sample.
10. Analyses shall be conducted on unfiltered samples, unless filtered samples have been approved in writing by the Department as being more representative of ground water conditions.
11. If a monitoring well becomes damaged or cannot be sampled for an appropriate reason, the permittee shall notify the Department immediately and a written report shall follow within seven days detailing the circumstances and remedial measures taken or proposed. Repair or replacement of monitoring wells shall require approval in writing by the Department.
12. All piezometers and wells not part of the approved ground water monitoring plan are to be plugged and abandoned in accordance with Rule 62-532.500(4), F.A.C., unless there is intent for their future use.
13. The permittee shall provide verbal notice to the Department as soon as practical after discovery of a sinkhole within an area for the management or application of wastewater or sludge. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department in a written report within 7 days of the sinkhole discovery.
14. Ground water monitoring test results shall be submitted on Part D of DEP Form 62-620.910(10) (attached) and shall be submitted to the address specified in I.E.3. Results shall be submitted with the DMR for each month listed in the following schedule.

SAMPLE PERIOD	REPORT DUE DATE
January - March	April 28
April - June	July 28
July - September	October 28
October - December	January 28

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#### IV. Other Land Application Requirements

The bottoms for the settling basins and percolation basins shall be cleaned out periodically, or when necessary, to remove the excess buildup of sediments, and to ensure continuous percolation capability for the percolation basins. Materials removed from the basins shall be managed as required in item II of this permit. Routine weed control and regular maintenance of basin embankments and access areas are required. The permittee shall inspect the condition of the impermeable liners for the lined settling basins and the percolation basins with lined side slopes. Any liners that display signs of significant deterioration or evidence of leakage or instability, shall be replaced immediately.

#### V. Operation and Maintenance Requirements

##### A. Operation of Treatment and Disposal Facilities

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.
2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

##### B. Record keeping Requirements:

1. The permittee shall maintain the following records on the site of the permitted facility and make them available for inspection:
  - 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, other than those required in items a. and f. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;
  - 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, unless otherwise specified by Department rule;
  - d. A copy of the current permit;
  - e. A copy of any required record drawings;
  - f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date on the logs or schedule.

#### VI. Schedules

1. The permittee shall achieve compliance with the other conditions of this permit as follows:

<u>Action Item and Operational level attained</u>	<u>Scheduled Completion and Issuance Date of permit</u>
Continue implementing existing BMP3 plan pursuant to section VII.D of this permit.	

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2. No later than 14 calendar days following a date identified in the above schedule(s) of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by an identified date, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.  
Within 180 days following permit issuance, the Permittee shall provide to the Department existing or new biological or water quality information related to thermal discharges.
4. Within 180 days following permit issuance, the permit shall initiate a chlorine optimization study for its cooling water chlorination and dechlorination system. The chlorine minimization study shall be completed within two years after it is initiated. The permittee shall provide the Department status updates until the study is complete. The chlorination optimization study shall incorporate the following milestones:
  - a. Notify Department of Initiation of Chlorination Optimization Study ..... Within 2 Weeks of Initiation
  - b. Submit Summary Report of Phase I of Chlorination Optimization Study ..... Upon Completion
  - c. Submit Quarterly Reports of Phase II of Chlorination Optimization Study ..... Every three months until completion
  - d. Notify Department of Completion of Chlorination Optimization Study ..... Upon Completion
  - e. Submit Final Chlorination Optimization Study Report ..... Upon completion but within two years following permit issuance.
  - f. Incorporate Chlorination Optimization Strategy into BMP3 ..... Upon Completion of Chlorination Optimization Study

## **VII. Other Specific Conditions**

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

1. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file at the Unknown District Office, are made a part hereof.
2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of reports to be submitted under this permit, shall be signed and sealed by the professional(s) who prepared them.
3. This permit satisfies Industrial Wastewater program permitting requirements only and does not authorize operation of this facility prior to obtaining any other permits required by local, state or federal agencies.

### **B. Specific Conditions Related to Construction**

1. This section is not applicable to this facility.

### **C. Duty to Reapply**

1. The permittee shall submit an application to renew this permit at least 180 days before the expiration date of this permit.
2. The permittee shall apply for renewal of this permit on the appropriate form listed in Rule 62-620.910, F.A.C., and in the manner established in Chapter 62-620, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.
3. An application filed in accordance with subsections 1. and 2. of this part shall be considered timely and sufficient. When an application for renewal of a permit is timely and sufficient, the existing permit shall not expire until the Department has taken final action on the application for renewal or until the last day for seeking judicial review of the agency order or a later date fixed by order of the reviewing court.



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4. The late submittal of a renewal application shall be considered timely and sufficient for the purpose of extending the effectiveness of the expiring permit only if it is submitted and made complete before the expiration date.

**D. Specific Conditions Related to Best Management Practices/Pollution Prevention Conditions**

**1. General Conditions**

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 Waste Minimization Opportunity Assessment Manual, EPA/625/7-88/003.

**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) "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.
- (6) "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.
- (7) "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.
- (8) "BMP3" means a Best Management Plan incorporating the requirements of 40 CFR § 122.44, Subpart K, plus pollution prevention techniques associated with a Waste Minimization Assessment.
- (9) "Waste Minimization Assessment" means a systematic planned procedure with the objective of identifying ways to reduce or eliminate waste.

**2. Best Management Practices/Pollution Prevention Plan**

The permittee shall develop and implement a BMP3 plan 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

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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 BMP3 plan shall be signed in accordance with Item VII.A.2. and shall be reviewed by the plant engineering staff and plant manager. A copy of the plan shall be retained at the facility and shall be made available to the permit issuing authority upon request.

The BMP3 plan shall contain a written statement from corporate or plant management indicating management's commitment to the goals of the BMP3 program. Such statements shall be publicized or made known to all facility employees. Management shall also provide training for the individuals responsible for implementing the BMP3 plan.

**b. BMP3 Plan Requirements**

- (1) Name & description of facility, a map illustrating the location of the facility & adjacent receiving waters, and other maps, plot plans or drawings, as necessary;
- (2) 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;
- (3) A description of procedures relative to spill prevention, control & countermeasures and a description of measures employed to prevent storm water contamination;
- (4) A description of practices involving preventive maintenance, housekeeping, recordkeeping, inspections, and plant security; and
- (5) The description of a waste minimization assessment performed in accordance with the conditions outlined in condition e below, results of the assessment, and a schedule for implementation of specific waste reduction practices.

**c. Waste Minimization Assessment**

A waste minimization assessment (WMA) shall be conducted for this facility to determine actions that could be taken to reduce waste loadings and chemical losses to all wastewater and/or storm water streams as described in Part VII.D.2 of this permit. It shall address both short-term and long-term opportunities for minimizing waste generation at this facility, utilizing at a minimum, applicable criteria selected from Part VII.D.2: Required Components of a Waste Minimization Assessment, particularly for high volume and/or high toxicity components of wastewater and storm water streams. Initially, the WMA should focus primarily on actions that could be implemented quickly, thereby realizing tangible benefits to surface water quality. Long term goals and actions pertaining to waste reduction shall include investigation of the feasibility of eliminating toxic chemical use, instituting process changes, raw material replacements, etc.

**Implementation of Results:** The permittee shall implement each waste reduction practice recommended by the WMA as soon as practicable. Any waste reduction practices which are identified but will not be implemented shall be described in the required Pollution Prevention plan summary or progress/update reports, along with the factors inhibiting their adoption. Any waste reduction practices which cannot be implemented immediately shall be described in the Pollution Prevention plan.

**Timeframe:** The permit issuing authority does not herein establish a time limit for completion of the WMA; the study may be conducted throughout the term of this permit. However, a suggested target completion date is six months after the effective date of the permit, so that the WMA results and recommended waste reduction practices may be incorporated into the BMP3 plan. Continual studies toward minimizing waste are encouraged.

Practices which reduce pollutant loading in wastewater or storm water discharges with a consequent increase in solid hazardous waste generation, decrease in air quality, or adverse affect to groundwater shall not be considered waste reduction for the purposes of this assessment.

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d. Best Management Practices & Pollution Prevention Committee Recommended:

A Best Management Practices Committee (Committee) should be established to direct or assist in the implementation of the BMP3 plan. The Committee should be comprised of individuals within the plant organization who are responsible for developing the BMP3 plan and assisting the plant manager in its implementation, monitoring of success, and revision. The activities and responsibilities of the Committee should address all aspects of the facility's BMP3 plan. The scope of responsibilities of the Committee should be described in the plan.

e. Employee Training

Employee training programs shall inform personnel at all levels of responsibility of the components & goals of the BMP3 plan and shall describe employee responsibilities for implementing the plan. Training shall address topics such as good housekeeping, materials management, record keeping & reporting, spill prevention & response, as well as specific waste reduction practices to be employed. Training should also disclose how individual employees may contribute suggestions concerning the BMP3 plan or suggestions regarding Pollution Prevention. The plan shall identify periodic dates for such training.

f. Plan Development & Implementation

The BMP3 plan shall be developed and implemented 6 months after the effective date of this permit, unless any later dates are specified in this permit. Any portion of the WMA 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.

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 BMP3 plan 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 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 BMP3 Plan Requirements:

<u>REQUIREMENT</u>	<u>TIME FROM EFFECTIVE DATE OF THIS PERMIT</u>
Complete WMA	6 months
Develop & Implement Plan	6 months
Develop 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.

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**h. Plan Review & Modification**

If following review by the Department, the BMP3 plan is determined insufficient, the permittee will be notified that the BMP3 plan 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 BMP3 plan 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.

**5. Required Components Of A Waste Minimization Assessment**

**a. Plant Water Balance**

The WMA shall include an overall plant water balance, as well as internal water balances, as necessary. This information shall be used to determine any opportunities for water conservation or reuse/recycling and to determine if and where leakages might occur.

**b. Material and Risk Assessment**

A materials & risk assessment shall be developed and shall include the following:

- (1) Identification of the types & quantities of materials used or manufactured (including by-products produced) at the facility;
- (2) Identification of the location & types of materials management activities which occur at the facility;
- (3) An evaluation of the following aspects of materials compatibility: containment & storage practices for chemicals, container compatibility, chemical mixing procedures; potential mixing or compatibility problems; and specific prohibitions regarding mixing of chemicals;
- (4) Technical information on human health and ecological effects of toxic or hazardous chemicals presently used or manufactured (including by-products produced) or planned for future use or production; and
- (5) Analyses of chemical use & waste generation, including overall plant material balances and as necessary, internal process balances, for all pollutants: (When actual measurements of the quantity of a chemical entering a wastewater or storm water stream are not readily available, reasonable estimates should be made based on best engineering judgment.) The analyses shall address reasons for using particular chemicals, and measures or estimates of the actual and potential chemical discharges via wastewater, wastewater sludge, storm water, air, solid waste or hazardous waste media.

**c. Pollutant Reduction Methods**

The WMA shall include, at a minimum, the following means of reducing pollutant discharges in wastewater streams or of otherwise minimizing wastes:

- (1) Process related source reduction measures, including any or all of the following, as appropriate:
  - (a) production process changes;
  - (b) improved process controls;
  - (c) reduction of off-spec materials;
  - (d) reduction in use of toxic or hazardous materials;
  - (e) chemical modifications and/or material purification;
  - (f) chemical substitution employing non-toxic or less toxic alternatives; and
  - (g) equipment upgrades or modifications or changes in equipment use.

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- (2) housekeeping/operational changes, including waste stream segregation, inventory control, spill & leak prevention, equipment maintenance; and employee training in areas of pollution prevention, good housekeeping, and spill prevention & response;
- (3) in-process recycling, on-site recycling and/or off-site recycling of materials;
- (4) following all source reduction & recycling practices, wastewater treatment process changes, including the use of new or improved treatment methods, such that treatment by-products are less toxic to aquatic or human life; and
- (5) other means as agreed upon by the permit issuing authority and the permittee.

d. Storm Water Evaluation

For storm water discharges and instances where storm water enters the wastewater treatment/disposal system or is otherwise commingled with wastewater, the WMA shall evaluate the following potential sources of storm water contamination, at a minimum:

- (1) loading, unloading and transfer areas for dry bulk materials or liquids;
- (2) outdoor storage of raw materials or products;
- (3) outdoor manufacturing or processing activities;
- (4) dust or particulate generating processes; and
- (5) on-site waste and/or sludge disposal practices.

The likelihood of storm water contact in these areas and the potential for spills from these areas shall be considered in the evaluation. The history of significant leaks or spills of toxic or hazardous pollutants shall also be considered. Recommendations for changes to current practices which would reduce the potential for storm water contamination from these areas shall be made, as necessary.

E. Specific Conditions Related to Existing Manufacturing, Commercial, Mining, and Silviculture Wastewater Facilities or Activities

1. Existing manufacturing, commercial, mining, and silvicultural wastewater facilities or activities that discharge into surface waters shall notify the Department as soon as they know or have reason to believe:
  - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following levels
    - (1) One hundred micrograms per liter,
    - (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony, or
    - (3) Five times the maximum concentration value reported for that pollutant in the permit application.
  - b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following levels
    - (1) Five hundred micrograms per liter,
    - (2) One milligram per liter for antimony, or
- (3) Ten times the maximum concentration value reported for that pollutant in the permit

F. Reopener Clause

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345 F.A.C., if applicable, or to comply with any applicable effluent standard or

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limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standards, limitations, or water quality standards so issued or approved:

- a. Contains different conditions or is otherwise more stringent than any condition in the permit/or;
- b. Controls any pollutant not addressed in the permit.

The permit as revised or reissued under this paragraph shall contain any other requirements then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future Water Quality Based Effluent Limitation determinations, water quality studies, DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.
3. The Department may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department shall revise this permit to incorporate the final findings of the TMDL.

#### VIII. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida Statutes, and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. [62-620.610(1), F.A.C.]
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviations from the approved drawings, exhibits, specifications or conditions of this permit constitute grounds for revocation and enforcement action by the Department. [62-620.610(2), F.A.C.]
3. As provided in Subsection 403.087(6), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. [62-620.610(3), F.A.C.]
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [62-620.610(4), F.A.C.]
5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [62-620.610(5), F.A.C.]
6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. [62-620.610(6), F.A.C.]
7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. [62-620.610(7), F.A.C.]

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8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8), F.A.C.]*
9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to
  - a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
  - b. Have access to and copy any records that shall be kept under the conditions of this permit;
  - c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
  - d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.  
*[62-620.610(9), F.A.C.]*
10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, Florida Statutes, or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10), F.A.C.]*
11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11), F.A.C.]*
12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12), F.A.C.]*
13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13), F.A.C.]*
14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. *[62-620.610(14), F.A.C.]*
15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15), F.A.C.]*
16. The permittee shall apply for a revision to the Department permit in accordance with Rules 62-620.300 and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2) for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16), F.A.C.]*

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17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:
- A description of the anticipated noncompliance;
  - The period of the anticipated noncompliance, including dates and times; and
  - Steps being taken to prevent future occurrence of the noncompliance.
- [62-620.610(17), F.A.C.]
18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapter 62-160 and 62-601, F.A.C. and 40CFR 136, as appropriate.
- Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10).
  - If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
  - Calculations for all limitations, which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
  - Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for any specific method and analyte combination that is used to comply with this permit. For domestic wastewater facilities, the on-site test procedures specified in Rule 62-160.300(4), F.A.C., shall be performed by a laboratory certified test for those parameters or under the direction of an operator certified under Chapter 62-602, F.A.C.
  - Field activities including on-site tests and sample collection, whether performed by a laboratory or a certified operator, must follow the applicable procedures described in DEP-SOP-001/01 (January 2002). Alternate field procedures and laboratory methods may be used where they have been approved according to the requirements of Rules 62-160.220, 62-160.330, and 62-160.600, F.A.C.
19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. [62-620.610(19), F.A.C.]
20. The permittee shall report to the Department's Southeast District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- The following shall be included as information which must be reported within 24 hours under this condition:
    - Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
    - Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
    - Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
    - Any unauthorized discharge to surface or ground waters.



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b. Oral reports as required by this subsection shall be provided as follows:

1. For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph a.4 that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:

- (a) Name, address, and telephone number of person reporting;
- (b) Name, address, and telephone number of permittee or responsible person for the discharge;
- (c) Date and time of the discharge and status of discharge (ongoing or ceased);
- (d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
- (e) Estimated amount of the discharge;
- (f) Location or address of the discharge;
- (g) Source and cause of the discharge;
- (h) Whether the discharge was contained on-site, and cleanup actions taken to date;
- (i) Description of area affected by the discharge, including name of water body affected, if any; and
- (j) Other persons or agencies contacted.

2. Oral reports, not otherwise required to be provided pursuant to subparagraph b.1 above, shall be provided to Department's Southeast District Office within 24 hours from the time the permittee becomes aware of the circumstances.

c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southeast District Office shall waive the written report.

*[62-620.610(20), F.A.C.]*

21. The permittee shall report all instances of noncompliance not reported under Conditions VIII.18 and 19 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII.20 of this permit. *[62-620.610(21), F.A.C.]*

22. Bypass Provisions:

a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

3. The permittee submitted notices as required under Condition VIII.22.b of this permit.

b. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition VIII.20 of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and

PERMITTEE:  
Florida Power & Light Company  
200-300 Broadway Company  
Riviera Beach, Florida 33404

PERMIT NUMBER: FL0001546  
Issuance date: February 10, 2004  
Expiration date: February 09, 2009

times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

- c. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII.22 a.(1) through (3) of this permit.
- d. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.22.a through c. of this permit.

[62-620.610(22), F.A.C.]

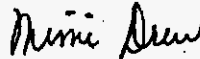
23. Upset Provisions:

- a. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
  1. An upset occurred and that the permittee can identify the cause(s) of the upset;
  2. The permitted facility was at the time being properly operated;
  3. The permittee submitted notice of the upset as required in Condition VIII.20 of this permit; and
  4. The permittee complied with any remedial measures required under Condition VIII.5 of this permit.
- b. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
- c. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

[62-620.610(23), F.A.C.]

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION



Mimi Drew  
Director  
Division of Water Resource Management

2600 Blair Stone Road  
Tallahassee, FL32399-2400  
(850) 245-8336



Jeb Bush  
Governor

## Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

In the matter of:  
Approval of FPL Riviera Power Plant  
Manatee Protection Plan

DEP Permit No. FL0001546  
Palm Beach County

Mr. Ron Hix  
FPL-SES/JB  
Florida Power & Light Company (FPL)  
P. O. Box 14000  
Juno Beach, FL 33408

### NOTICE OF AGENCY ACTION

The Department of Environmental Protection hereby gives notice of its approval of the enclosed Manatee Protection Plan for the FPL Riviera Plant, dated August 7, 2000. The Manatee Protection Plan was completed pursuant to Specific Condition 12 of the above referenced permit.

A person whose substantial interests are affected by the Department action may petition for an administrative hearing in accordance with sections 120.569 and 120.57 of the Florida Statutes.

The petition must contain the information set forth below and must be filed (received) in the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within twenty-one days of receipt of this notice of intent. Petitions filed by any other person must be filed within twenty-one days of publication of the public notice or within twenty-one days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner; the Department case identification number and the county in which the subject matter or activity is located;
- (b) A statement of how and when each petitioner received notice of the Department action;

*"More Protection, Less Process"*

*Printed on recycled paper.*

Florida Power & Light Company  
Riviera – Manatee Protection Plan

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- (c) A statement of how each petitioner's substantial interests are affected by the Department action;
- (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;
- (f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department final action may be different from the position taken by it in this order. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation under section 120.573 of the Florida Statutes is not available for this proceeding.

This action is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above. Upon the timely filing of a petition this order will not be effective until further order of the Department.

Any party to the order has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the 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 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



Mimi Drew  
Director  
Division of Water Resource Management

2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
(850) 487-1855

Florida Power & Light Company  
Riviera – Manatee Protection Plan

Page 3 of 3

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF AGENCY ACTION and all copies were mailed before the close of business on 12-21-00 to the listed persons.

**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.

S. Shields 12-21-00  
(Clerk) (Date)

**Copies furnished to:**

Kipp Frohlich, FWC Tallahassee  
Chairman, Board of Palm Beach County Commissioners  
Jim Valade, U.S. Fish and Wildlife Service  
Save the Manatee Club  
Tim Powell, DEP West Palm Beach  
Betsy Hewitt, DEP Office of General Counsel

**Florida Power & Light – Riviera  
Manatee Protection Plan  
(August 7, 2000)**

**Purpose:**

The purpose of the Manatee Protection Plan is to set forth Florida Power & Light Company's (FPL) procedures to comply with Specific Condition 12 of the facility's State Industrial Wastewater Permit Number FL0001546 that was issued on February 16, 1998. This Specific Condition reads, in part:

12. The permittee, in so far as required to comply with Tasks 25 and 251 of the U.S. Fish and Wildlife Service (USFWS) "Florida Manatee Recovery Plan," shall develop a plan and procedures addressing potential manatee impacts, ...All plans, if required, shall include an implementation schedule and address, at a minimum:
  - (a) Plans to minimize disruption to warm-water outflows during the winter and response procedures in case of disruptions.
  - (b) Strategy to maintain discharge temperatures that will sustain manatees during cold events.
  - (c) Plan to monitor ambient and discharge temperatures.
  - (d) Precautions to minimize hazards to manatees at intake and outfall areas.
  - (e) Timely communication to manatee recovery program personnel of any long term changes in the availability of warm water.

**Compliance with Specific Condition 12:**

1. This Manatee Protection Plan will be in effect during the term of the permit. In order for the plant's warm water discharge to provide a safe, warm water refuge for the manatees and to comply with Specific Condition 12, FPL will take the following actions:
  - a) In the case of an unplanned shutdown or a plant failure that will affect the warm water refuge from November 15 through March 31, when the ambient water temperature is below 61°F., the Florida Fish and Wildlife Conservation Commission (FWC) and USFWS will be notified no later than four (4) hours after the event has occurred. If an unplanned shutdown occurs that is expected to result in no thermal discharge for 24 hours or longer, regardless of ambient water temperature, the Florida Marine Research Institute should be notified.

The following agency representatives shall be notified in the above referenced events or if any distressed manatees are observed at any time:

FWC/Florida Marine Research Institute-Marine Mammal Pathobiology Lab:(727)-893-

USFWS - Jacksonville Field Office: (904) 232-2580

The FWC, Bureau of Protected Species Management (BPSM) shall be provided a schedule of any anticipated in-water work within the discharge area or work that will affect the warm water refuge during the period of November 15 through March 31 each year. No routine in-water maintenance work shall occur in the discharge area from November 15 through March 31, unless it is considered essential by FPL and approved by BPSM prior to the start of work. If emergency in-water work is needed, the BPSM will be notified and consulted no later than two weeks following the commencement of the activity. All vessels used in the operation or associated with the activity shall be operated pursuant to the attached standard manatee construction conditions.

- b) From November 15 through March 31 each year, to coincide with the time of greatest manatee abundance, if the ambient water temperature falls below 61°F., the FPL Riviera power plant shall endeavor to operate in a manner that maintains the water temperature in an adequate portion of the Unit 1 and 2 "discharge area" at or above 68°F., until such time as the ambient water temperature reaches 61°F., unless otherwise authorized by BPSM and the USFWS, or unless safety or reliability of the plant would be compromised. The main method for heating this area will be the "manatee siphons" that discharge heated effluent from the Unit 3 and 4 seal wells to the abandoned Unit 1 and 2 discharge area.
- c) FPL Riviera power plant will provide personnel from the BPSM, USFWS, Florida Marine Research Institute, USGS-Sirenia Project, or a designee of these agencies, access to the FPL Riviera plant property to conduct manatee research and monitoring activities which may include, placing, maintaining and downloading data from temperature data loggers. (These temperature data loggers will be used to collect air and water temperature data in an ongoing research effort to better understand manatee behavior patterns in response to artificial warm water refugia and environmental variables. The temperature data loggers will be placed in the discharge canal and at ambient water and air locations.) Access would be limited to normal business hours (8:00am - 5:00pm) unless arrangements are made in advance with the FPL Riviera power plant.
- d) Intake Area: No special surveys will be required for the intake area.  
Discharge Area: No special surveys will be required for the intake area.
- e) Should FPL decide to retire these units, notice will be provided to FWC and USFWS as soon as practical after a definite decision is made or, if possible, at least five years prior to the date of retirement.
- f) To assist in documenting long-term use patterns of this facility, FPL should conduct periodic aerial surveys of manatees at the Riviera facility. The continuation of the ongoing statewide aerial survey that FPL has funded in the past years meets these criteria.
- g) The FPL Riviera power plant will provide phone numbers for weekday and weekend notification of appropriate plant personnel for the purpose of allowing FWC or USFWS to coordinate manatee rescue operations as necessary.

- 2) FPL actions, pursuant to this plan, that will be conducted on a one-time basis unless there are significant physical or operational changes to the FPL Riviera power plant.
- a) Provide a site map of the facility as a part of the plan that includes the following information;
1. The location of the intake pipes and outfall pipes.
  2. Proximate streams, rivers, bays, etc.
  3. The location of the condenser inlet and outlet temperature monitoring stations.
  4. The location of any fuel barge docking facilities in relation to the discharge canal.
  5. The delineation of the no-entry boundary at the discharge canal.
- b) In order to evaluate and determine what portions of the thermal discharge will provide a sufficient warm water refuge for manatees under potential cold stress water conditions; the FPL Riviera power plant will, within two (2) years of the effective date of this plan, provide a profile of the thermal gradient (either actual or calculated) of the discharge canal waters, as well as its gross bathymetry, at the mean rate of discharge when the ambient water temperature reaches a seasonal low.



FLORIDA POWER & LIGHT – RIVIERA PLANT  
MANATEE PROTECTION PLAN

1a) STANDARD MANATEE CONSTRUCTION CONDITIONS FOR ARTIFICIAL  
WARM WATER REFUGIA DURING THE PERIOD OF NOVEMBER 15  
THROUGH MARCH 31.

The permittee shall comply with the following manatee protection conditions:

- a. The permittee shall instruct all personnel associated with in-water work within the discharge canal and/or the warm water refuge of the potential presence of manatees and the need to avoid collisions with manatees. All vessels used in the operation or in association with the in-water work shall have an observer on board responsible for identifying the presence and location of manatee(s).
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.
- c. All vessels associated with in-water work associated with the discharge canal and/or warm water refuge shall operate at "no wake/idle" speeds at all times while in the manatee warm water refuge area. All vessels will follow routes of deep water whenever possible.
- d. If manatee(s) are seen within the discharge canal and/or warm water refuge area all appropriate precautions shall be implemented to ensure protection of the manatee(s). These precautions shall include the immediate shutdown of equipment if necessary. Activities will not resume until the manatee(s) has departed to a safe distance on its own volition.
- e. Any collision with and/or injury to a manatee shall be reported immediately to the Florida Fish & Wildlife Conservation Commission at (1-800-342-5367). Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580).



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
6620 Southpoint Drive, South  
Suite 310  
Jacksonville, Florida 32216-0912

IN REPLY REFER TO:

June 24, 2008

Randall LaBauve, Director  
Environmental Services  
Florida Power and Light Company  
700 Universe Boulevard  
Juno Beach, Florida 33408

Dear Mr LaBauve:

The U. S. Fish and Wildlife Service (Service) appreciates Florida Power and Light Company's (FP&L) efforts to notify us, the Florida Fish and Wildlife Conservation Commission (FWC), and others about plans to repower the Canaveral and Riviera Beach power plants and company concerns regarding manatees known to use these sites.

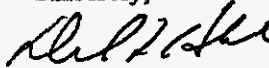
Repowering efforts will involve closing the plants for extended periods of time during demolition and construction activities, a process that will ultimately extend the plant's operational lifespan, as well as the associated warm water discharges. The shutdowns will include temporarily eliminating the warm water discharges from each site during the winter when they are typically used by hundreds of manatees.

At present, there are no authorizations in place under either the Marine Mammal Protection Act of 1972 or the Endangered Species Act of 1973 for the incidental take of manatees and their critical habitat. Wintering habitat is the most important biological factor limiting manatee populations and is integral to the recovery of the species. Therefore, it is critical that you minimize impacts and take steps to avoid the loss of any manatees during your transition process, as well as insure that there is no loss of manatee wintering habitat in both the near and long term.

For planning purposes, we recommend that your plan designs include identifying baseline information about the extent of warm water habitat currently used by manatees at both plants. This could include measuring the areas of warm water habitat, discharge temperatures, discharge volumes, and other parameters. The same or similar quantities of habitat will need to be provided at or in close enough proximity to these sites, such that manatees are able to find and use it with minimal disruption. In addition, any locations should include protections from human disturbance, similar to those which are currently in place. Finally, contingency plans currently under development by FWC, the Service, FP&L and others, should be completed and operational during the transition in the event that manatees do not respond as expected.

FP&L is a valued partner in the conservation and recovery of the manatee and we are confident that you will make every effort to provide for manatees as you move ahead. We look forward to working with you on this important issue, and would appreciate an opportunity to meet with you to discuss this further. Please do not hesitate to contact us if you have any questions or concerns.

Sincerely,



Dave Hankla  
Field Supervisor

CC: Sam Hamilton, Regional Director, Atlanta, Georgia  
Ken Haddad, Director, Florida Fish and Wildlife Conservation Commission,  
Tallahassee, Fl