



July 24, 2009

Michael P. Halpin, Program Administrator
Office of Siting Coordination
Department of Environmental Protection
3900 Commonwealth Blvd. MS 48
Tallahassee, FL 32399-3000

Re: FPL Martin Plant
DEP Case Number PA89-27M
Amendment to the Site Certification
Demineralized Water Makeup System Upgrade

Dear Mr. Halpin:

Pursuant to Section 403.5113, F.S. and Rule 62-17.205(1), F.A.C., Florida Power & Light Company ("FPL") requests a post-certification amendment to the Martin Plant Site Certification. The purpose of this amendment is to obtain authorization to install, within the certified site, the piping associated with a new trailer-mounted demineralized water makeup system ("new demineralized water makeup system") that FPL is installing outside of the certified site. The new demineralized water makeup system will increase the output from 300 to 400 gallons per minute. The water source for the new demineralized water makeup system will be the cooling pond, which is the source for the existing demineralization water makeup system. The existing cooling pond allocation is sufficient to supply the new demineralized water makeup system.

In a separate submittal, FPL will be requesting a minor modification to the Martin Plant's Industrial Wastewater Facility Permit No. FL0030988 to address the change in equipment and the increase in wastewater. The new demineralized water makeup system's wastewater will continue to be discharged to the existing wastewater treatment system which, in turn, discharges to the cooling pond. An engineering analysis was performed that confirmed the expanded wastewater discharge from the proposed new demineralized water makeup system will not negatively impact water quality in the Martin Plant's cooling pond.



FPL

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EMPOWERING TOMORROW.®

Florida Power & Light Company, P.O. Box 14000, Juno Beach, FL 33408-0420

Please find attached the following supporting documents that relate to the new demineralized makeup water system:

1. Martin Plant Project Description with Water Treatment Process Flow Diagrams
2. Site Map
3. Application for a Minor Revision to a Wastewater Facility including a revised Flow Diagram and other related information
4. Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities
5. Storm Water Pollution Prevention Plan for FPL's Demineralized Water Makeup System Construction.

Thank you for your attention to and consideration of FPL's request to amend the Site Certification for the Martin Plant. If you have questions regarding this submittal, please contact Andy Flajole at (561) 691-2766 or me at (561) 691-7518.

Sincerely,
Florida Power & Light Company

Barbara P. Linkiewicz
Director, Environmental Licensing

Copy: William Reichel, FPL
Ashley Pinnock, FPL
Doug Roberts, Hopping Green & Sams
Distribution List (attached)



FPL Martin Plant
DEP Case Number PA89-27M
Distribution List 7/22/09

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Martin Plant Project Description

FPL's Martin Plant is replacing the existing 300 gallons per minute (gpm) Demineralized Water Treatment System with a new 400 gpm Demineralized Water Treatment System. The new plant will be placed on an existing concrete pad (attachment 2). The new system will consist of the following equipment:

- Carbon filtration
- An ultra filtration unit
- Cartridge filters
- Chemical feed systems
- A double pass reverse osmosis (RO) membrane system
- Permeate storage tank
- Ion exchange polishing
- Waste neutralization tank

Raw Water Supply

The system will use raw pond water from the Martin cooling pond. The water will be sourced from either unit 3 or Unit 4 circulating water inlet conduits. Independently operated, skid mounted pump stations capable of delivering up to 900 gpm will maintain the pond water pipeline at a constant supply pressure to the carbon Filtration unit.

Carbon Filtration

Effluent from the pond water pipeline enters the carbon filtration system where rough filtration takes place using activated carbon. Prior to the carbon filters, coagulant and chlorine is added to the feedwater. Each of the six (6) filter vessels are 63" in diameter and capable of flows in the range of 150 to 175 gpm. After effluent is treated in the carbon filters, acid may be fed depending on water quality. Carbon filter backwash is discharged to the existing FPL waste water treatment system.

Microfiltration

Water is supplied to the micro filtration system from the carbon filters. The system is self-contained and capable of operating at 800 gpm. The expected treated water quality is <0.1 NTU turbidity. Bio-organisms are removed up to 7 log (no microorganisms detected in effluent); therefore downstream bio-fouling is extremely limited. Sodium bisulfite is fed to the effluent after microfiltration. Prior to the cartridge filters antiscalant and hydrochloric or sulfuric acid is injected for scale control to protect the reverse osmosis membranes. Microfiltration backwash is discharged to the existing FPL waste water treatment system.

Chemical Addition and Cartridge Filters

The chemical injection system includes bulk storage tanks and metering pumps. All chemical storage and lines have secondary containment.

One-micron cartridge filters are provided to ensure fines do not enter the reverse osmosis units. Two housings hold 22 cartridge filters each, operating in parallel, in each of the two RO containers.

Reverse Osmosis System (RO)

Two (2) climate-controlled, DOT-approved containers, each measuring 45-foot long by 8-foot wide house the reverse osmosis membranes. Each container houses a 200-gpm double pass reverse osmosis which can be converted into a 500-gpm single-pass reverse osmosis system. The typical mode of operation is double pass mode, providing a minimum of 400-gpm of product water. The first pass RO unit of each container produces two streams of water; permeate, which is sent to the second pass RO unit, and concentrate which is a waste stream.

The second pass RO unit of each container also produces two streams of water; permeate, which is sent to the permeate storage tanks, and concentrate, which will be recycled to the feed of the first pass RO units when the Total Dissolved Solids are within the specification limits to allow reuse.

Liqui-Cell System

Liqui-cells are utilized to remove carbon dioxide from the RO effluent prior to discharge to the RO permeate storage tank.

RO Permeate Storage Tank

To reduce wastewater from rinse-in during startups, a 12,500 gallon reverse osmosis permeate storage tank is used to recycle the water. A pair of 100% capacity pumps is used to forward the tank water to the ion exchange polishing trailer.

Mixed Beds

Effluent from the RO Permeate Storage Tank is fed to mixed beds for final polishing. Effluent from the mixed bed is stored in the existing makeup water treatment system.

Waste Neutralization Tank

A waste neutralization tank is supplied to store and treat wastewater from the RO system cleanings. The tank volume is 2,000 gallons. Once the waste is neutralized, it will be pumped to the plant's waste water treatment system.

The waste water from the system will be discharged into the existing waste water treatment system with final discharge to the pond as currently permitted.

Existing Demineralized Water Treatment Facility

The existing demineralized water treatment plant will be decommissioned once the new system is placed in service except for piping and storage tanks.

The new demineralized water treatment system will discharge into the current makeup water treatment system.

The water and wastewater flow rates to and from the new Demineralized Water Treatment System fall within the permitted flow rates that were analyzed and approved during the Martin Unit 8 Site Certification. The installation of the new Demineralized Water Treatment System will not cause or contribute to any exceedances of surface or ground water quality standards.

The treated water system will not be used in the makeup water treatment system.

FEED WATER
FROM POND

602-858 GPM @ 95 PSI

METERING PUMP and
CHEMICAL CONTAINMENT
CHEMICAL: CHDRLINE

METERING PUMP and
CHEMICAL CONTAINMENT
CHEMICAL: COAGULANT

CARBON FILTRATION CONTAINER
MFG: MPV
MODEL: 6X63
DIM: 45'L x 8'W x 9.5'H
MAX DESIGN FLOW RATE: 900-1050 GPM

CARBON BACKWASH OUT
Varies with inlet water turbidity
150-200 GPM, 4,000-5000 GALLONS
PER VESSEL

METERING PUMP and
CHEMICAL CONTAINMENT
CHEMICAL: ACID

MICROFILTER UNIT
MFG: PALL
MODEL: PAM
DIM: 48'L x 8.5'W x 13.5'H
MAX DESIGN FLOW RATE: 800 GPM

MICROFILTER BACKWASH OUT
67-90 GPM AVERAGE
450 GPM ONCE EVERY 15 MINS FOR 30SECONDS
21,600 GALLONS PER DAY

METERING PUMP and
CHEMICAL CONTAINMENT
CHEMICAL: SODIUM BISULFITE

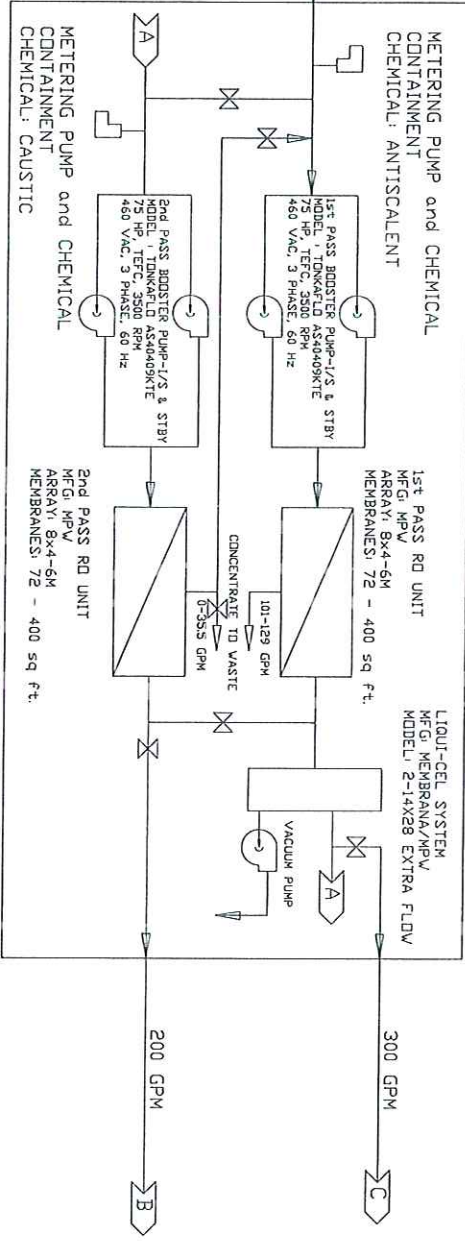
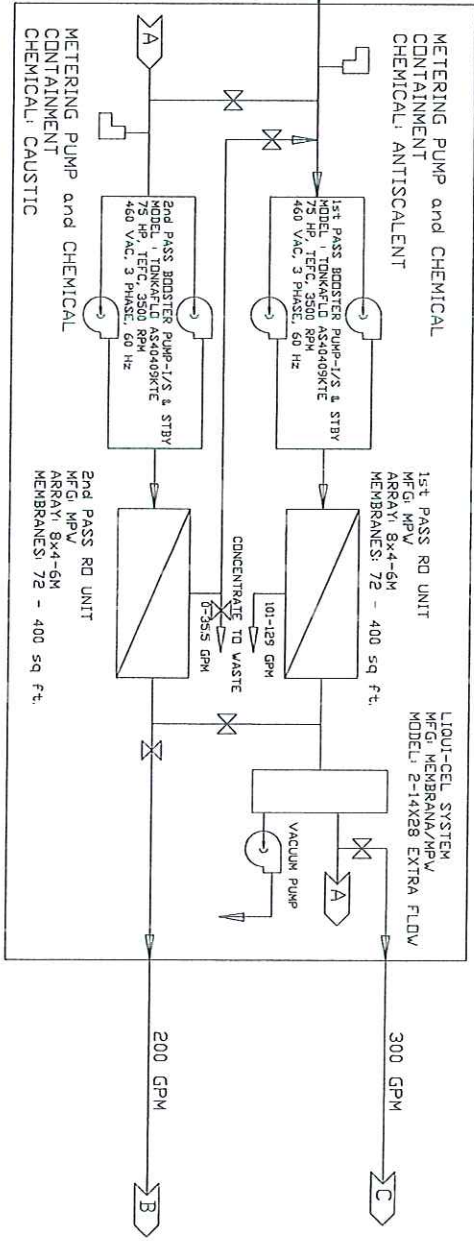
602-800 GPM

TO MPV RD
CONTAINERS

Revision History				
Rev	Description	DATE	DWG	APVD CHKD
A	Initial Release	03/20/08	MAS	
B	Add Feed Chemicals and Revise Flow Rates	03/26/08	MAS	
C	Change Wt product water delivery point	07/07/08	AJD	
D	Minor text changes per H. Pohl	06/30/09	AJD	
E				

DIVISION: Water Management		MPV INDUSTRIAL SERVICES	
TITLE: FPL Martin Process Flow Diagram - 400 gpm			
Quote No: 08-2191	Date: 03/20/08	Dwg No: FPL-PFD-MARTIN400-2191-01	
Customer: FPL	DWG: MAS	File: FPL Martin PFD 400.07072008R1.dwg	
Customer Loc: Indiantown, FL	APVD:	Scale: NONE	Sheet 1 of 3

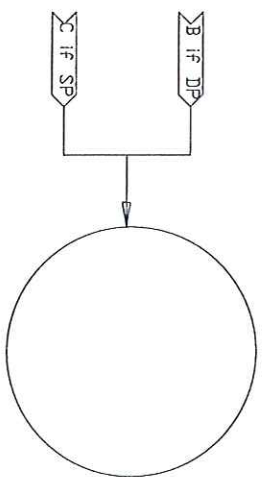
FEED WATER
FROM MICROFILTER



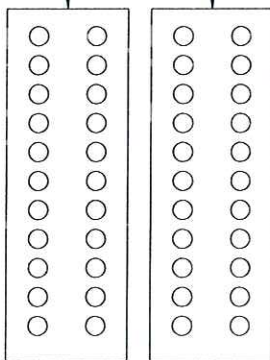
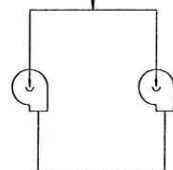
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Rev	Description	DATE	DWG	APVD	CHKD				
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B	Initial Feed Chemicals and Revise Flow Rates	03/26/08	MAS						
C	Change HP products water delivery point	07/07/08	AJD						
D	Minor text changes per K. Pohl	06/30/09	AJD						
E									

DIVISION: Water Management					MPW				
TITLE: FPL Martin Process Flow					INDUSTRIAL SERVICES				
Diagram - 400 gpm									
Quote No: 08-2191					Date: 03/20/08				
Customer: FPL					DWG: MAS				
Customer Loc: Indiantown, FL					FPL: FPL Martin PFD 400_07072008RLDW				
					APVD:				
					Scale: NONE				
					Sheet 2 of 3				

RD PERMEATE TANK
VOLUME : 12,500 GALs



RD PERMEATE BOOSTER PUMP
MODEL : G&L 46SV-2/1
15 HP, TEFC, 3500 RPM
460 VAC, 3 PHASE, 60 HZ

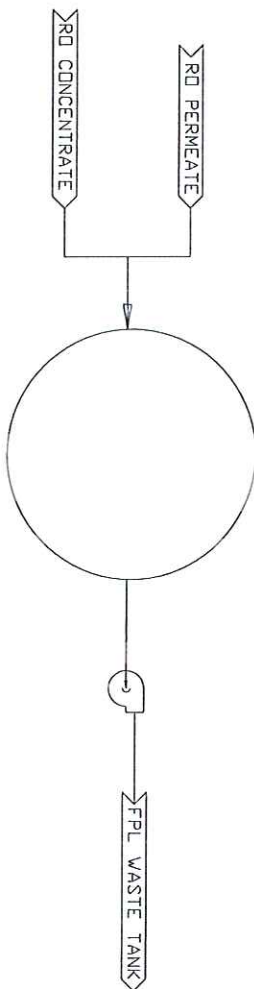


DEMIONATOR-10 with Mixed Bed Final polishing
MFG: MPV
MODEL: 10M GRAINS
DIM: 43"L x 8"W x 13.5"H

400-600 GPM @ 35 PSI



RD CIP NEUTRALIZATION TANK
VOLUME : 2,000 GALs



Revision History

Rev	Description	DATE	DWG	APVD	CHKD
A	Initial Release	03/20/08	MAS		
B	Add Feed Chemicals and Revise Flow Rates	03/26/08	MAS		
C	Change MP product water delivery point	07/07/08	AJD		
D	Minor text changes per H. Pohl	06/30/09	AJD		
E					

DIVISION: Water Management

TITLE: FPL Martin Process Flow
Diagram - 400 GPM

Quote No: 08-2191

Customer: FPL

Customer Loc: Indiantown, FL

Date: 03/20/08

DWG: MAS

APVD:

Dwg No: FPL-PFD-MARTIN400-2191-03

File: FPL Martin PFD 400_07072008R1.dwg

Scale: NONE

Sheet 3 of 3

MPW
INDUSTRIAL SERVICES

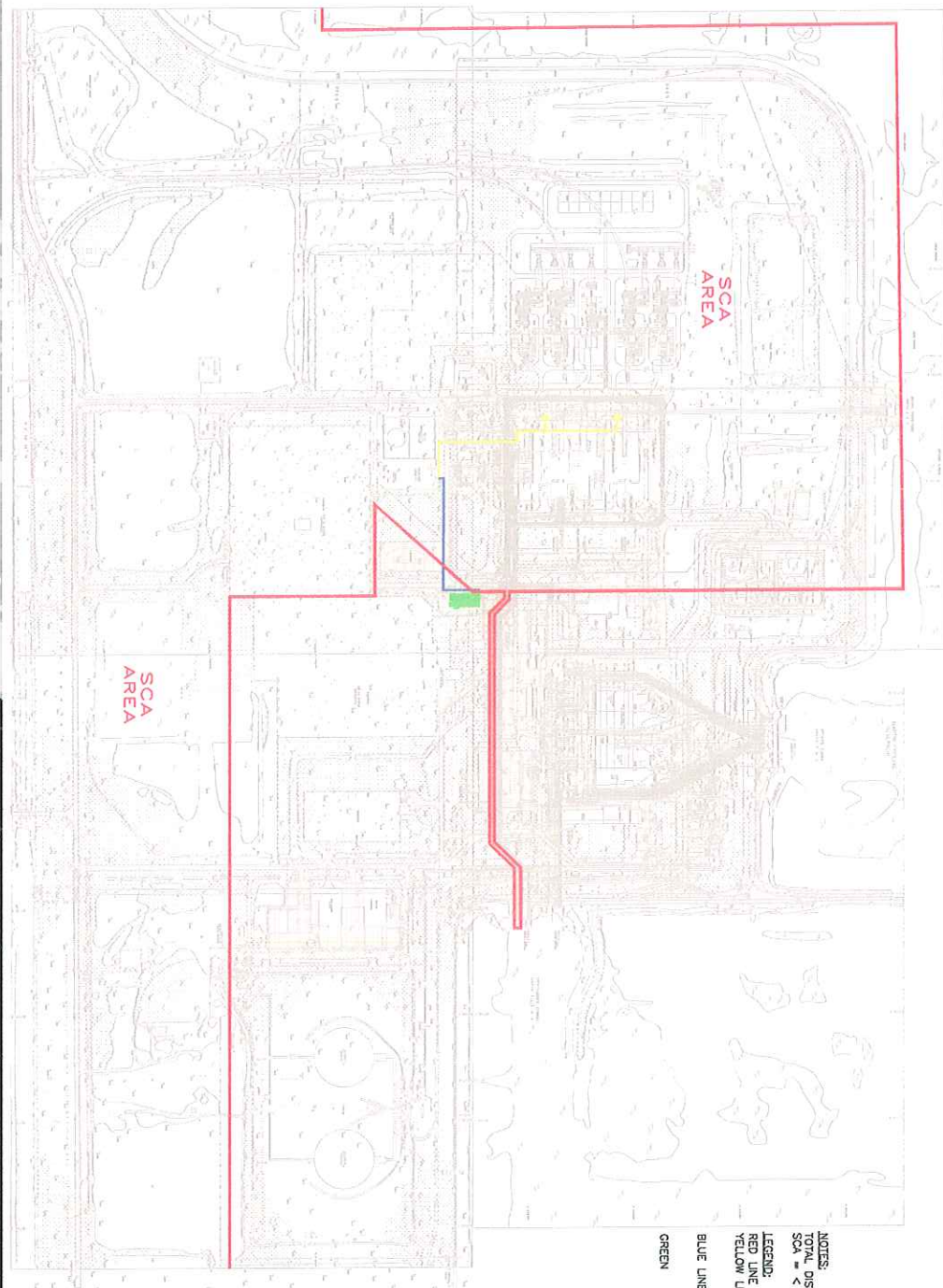
0 6/30/09 ISSUED FOR INFO ONLY
REV DATE

REVISION DESCRIPTION

GWS JWP TOL PGD
BY CH COR APR DRG



SCALE	DISCIPLINE	PLANT/UNIT
AS SHOWN	CS	MARTIN PLANT
DRAWING SIZE	CAD FILE NAME	TITLE
B(11"x17")	N/A	2010 UPGRADES TO THE DEMINERALIZED WATER MAKE UP SYSTEM
DRAWING NUMBER	PMR1-C0016-DW	
SHEET	REV	
1 OF 1	0	



NOTES:
TOTAL DISTURBED AREA WITHIN
SCA = < 1/2 ACRE.

- LEGEND:
- RED LINE = SCA BOUNDARY
 - YELLOW LINE = GROUND, INSTALLED EQUIP. ABOVE IN EXIST. PIPE RACK.
 - BLUE LINE = NEW PIPELINES UNDERGROUND INSTALLED IN TRENCH ALONG EXISTING ROADWAY.
 - GREEN = CONTRACTOR EXISTING SLAB.



APPLICATION FOR A MINOR REVISION TO A WASTEWATER FACILITY OR ACTIVITY PERMIT

1. Instructions

- In accordance with Rule 62-620.325, F.A.C., this form must be submitted to the appropriate Department district office or approved local program when requests for minor revisions to a permit or minor modifications to a facility are made by a permittee, except for transfer of a permit to a new permittee and addition of a major user of reclaimed water to a Part III reuse system. Application for transfer of a permit to a new permittee shall be made on DEP Form 62-620.910(11). Application for addition of a major user of reclaimed water shall be made on DEP Form 62-610.300(4)(a)1.
- Each applicable item must be completed in full in order to avoid delay in processing of this form. Where attached sheets or other technical documentation are provided, indicate appropriate cross-references.
- Three (3) copies of this application with supporting documentation shall be submitted with this form.
- All information is to be typed or printed in ink. Dates are to be entered in MM/DD/YR format.
- This application and attachments shall be signed in accordance with Rule 62-620.305, F.A.C. Also, as applicable, this application and all attachments shall be signed and sealed by a professional engineer registered in Florida in accordance with Rule 62-620.310, F.A.C.

2. Facility Information

- | | | | |
|---------------------------|---|------------------------------------|-----------|
| a. Permit Number: | <u>FL0030988</u> | b. Facility Identification Number: | <u>NA</u> |
| c. Project/Facility Name: | <u>Florida Power & Light Company Martin Plant</u> | | |
| d. Contact Name: | <u>William M. Reichel</u> | | |
| Number and Street: | <u>21900 SW Warfield Blvd</u> | | |
| City/State/Zip Code: | <u>Indiantown, FL 34956</u> | | |
| Telephone | <u>772-597-7106</u> | | |

3. Type of Revision

- ☐ **Correct Typographical Errors¹** - Submit one copy of each page of the permit showing revisions being requested.
- ☐ **Change Improvement Schedule¹** - Provide a description of the improvement, a list of the dates to be revised, and a reason for the proposed change in each date.
- ☐ **Change Expiration Date of Permit¹** - Provide the current and proposed expiration dates for the permit and the reasons for the proposed change.
- ☐ **Change Staffing Requirements²** - Describe the proposed change and submit justification for the change in accordance with Chapter 62-699, F.A.C.

¹A processing fee is not required.

²A processing fee is required with the application in accordance with Rule 62-4.050, F.A.C.

- ☐ **Change Monitoring and Reporting Requirements²** - Describe the proposed change and submit justification for the change in accordance with Chapter 62-601, F.A.C.
- ☐ **Modify Approved Pretreatment Program¹** - Describe the proposed modification and provide the information required by Rule 62-625.540, F.A.C.
- ☐ **Delete Point Source Outfall¹** - Identify the outfall and explain why the outfall is being eliminated.
- ☐ **Modify or Expand Approved Residuals Land Application Sites²** - Attach a new or updated Agricultural Use or Dedicated Site Plan as required by Chapter 62-640, F.A.C.
- ☒ **Minor Modification to the Facility²** - Provide a description of the proposed modification. If applicable, attach any reports, plans, and specifications which have been developed to implement this modification.
- ☐ **Other²** - Provide appropriate documentation. Describe.

4. Certifications

a. Applicant or Authorized Representative

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

X Auth. Cont. for William M. Reichel X 8/4/09
 (Signature of Applicant or Authorized Representative³) (Date)

Name (please type) William M. Reichel Company Name Florida Power & Light Company
 Title Plant General Manager Company Address: 21900 SW Warfield Blvd
 Phone: 772-597-7106 City/State/Zip Code: Indiantown, FL 34956

b. Professional Engineer Registered in Florida

I certify that the engineering features of this project have been (designed) (examined) by me and found to conform to engineering principles applicable to such projects. In my professional judgement, this facility, when properly constructed, operated, and maintained, will comply with all applicable statutes of the State of Florida and rules of the Department.

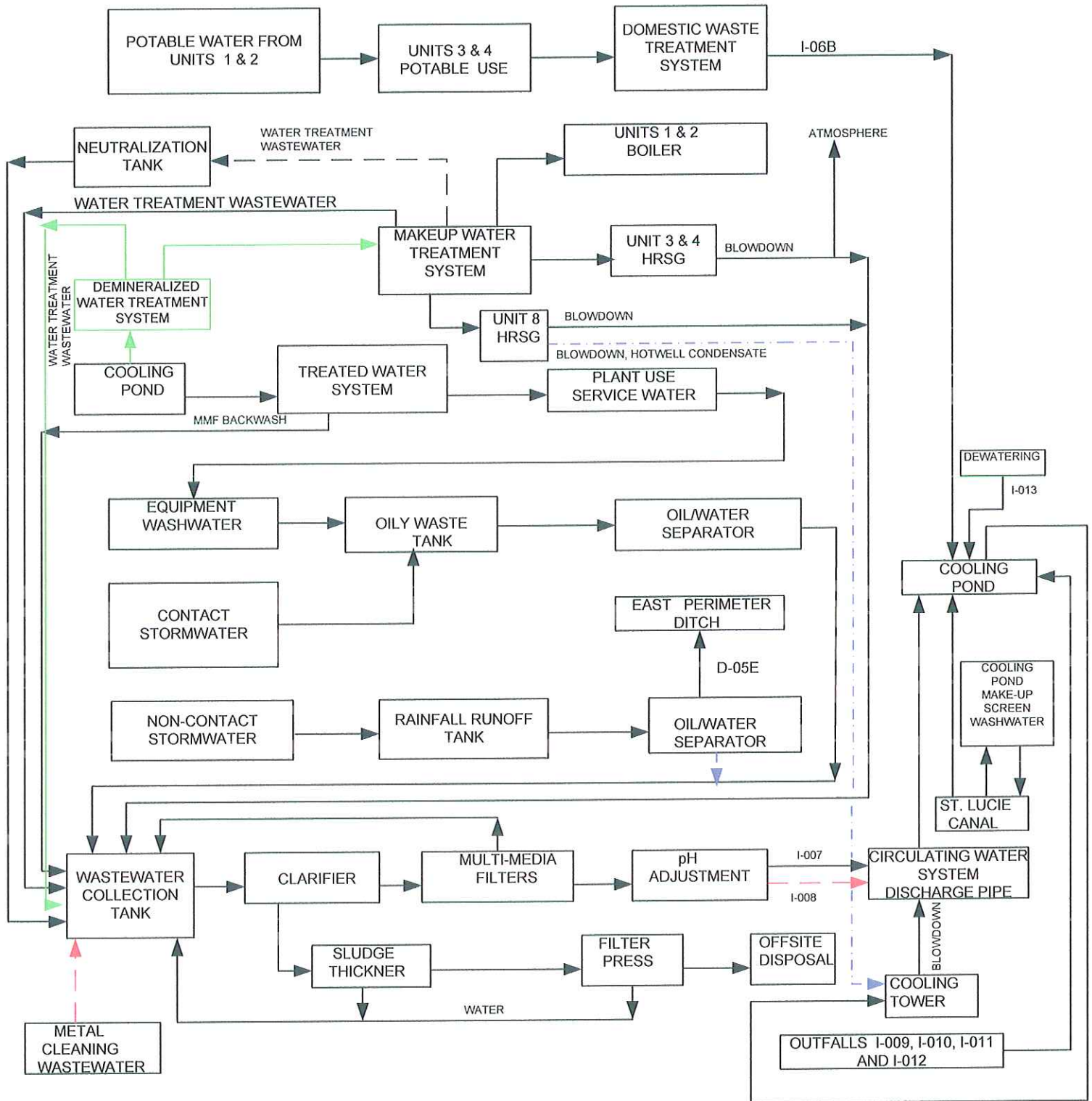
Name (please type): Harold A. Frediani, Jr.
 Florida Registration Number: 36394
 Company Name: Golder Associates Inc.
 Company Address: 3730 Chamblee Tucker Road
 City/State/Zip Code: Atlanta, GA 30341
 Phone Number: (770) 992-2533

Cert. of Auth. No: 1670
Harold A. Frediani, Jr. 7/23/09
 (Seal, Signature, Date, and Registration Number)



³If signed by the authorized representative, attach a letter of authorization in accordance Rule 62-620.305, F.A.C.

FPL Martin Plant Units 1, 2, 3, 4, 8 & Solar Water Flow Diagram



LEGEND:

- Regular Flow Path
- Non- Routine Flow Path
- Alternate Flow Path
- New DM System



NOTICE OF INTENT TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (RULE 62-621.300(4), F.A.C.)

This Notice of Intent (NOI) form is to be completed and submitted to the Department before use of the Generic Permit for Stormwater Discharge From Large and Small Construction Activities provided in subsection 62-621.300(4), F.A.C. The type of project or activity that qualifies for use of the generic permit, the conditions of the permit and additional requirements to request coverage are specified in the generic permit document [DEP Document 62-621.300(4)(a)]. The appropriate generic permit fee, as specified in paragraph 62-4.050(4)(d), F.A.C., shall be submitted with this NOI in order to obtain permit coverage. Permit coverage will not be granted without submittal of the appropriate generic permit fee. You should familiarize yourself with the generic permit document and the attached instructions before completing this NOI form. Please print or type information in the appropriate areas below.

I. IDENTIFICATION NUMBER:

Project ID: _____

II. APPLICANT INFORMATION:

A. Operator Name: Florida Power & Light Company (FPL) Martin Plant		B. Operator Status:
C. Address: 21900 SW Warfield Blvd		
D. City: Indiantown	E. State: FL	F. Zip Code: 34956
G. Responsible Authority: William M. Reichel		
H. Responsible Authority's Phone No: 772-597-7106		
I. Responsible Authority's Fax No: 772-597-7416		
J. Responsible Authority's E-mail Address: bill.reichel@fpl.com		

III. PROJECT/SITE LOCATION INFORMATION:

A. Project Name: Reverse Osmosis Water Plant		
B. Project Address/Location: Florida Power & Light, 21900 SW Warfield Blvd		
C. City: Indiantown	D. State: FL	E. Zip Code: 34956
F. County: Martin	G. Latitude: 27° 03' 38" N Longitude: 80° 33' 46" W	
H. Is the site located on Indian Country Lands? ☐ Yes ☒ No		I. Water Management District: SFWMD

J. Project Contact: Sam Hawkins – Regional Service Manager
K. Project Contact's Phone No: 330-623-5041
L. Project Contact's Fax No: 904-215-1481
M. Project Contact's E-mail Address: SHawkins@mpwservices.com

IV. PROJECT/SITE ACTIVITY INFORMATION:

A. Indicate whether the project is Large or Small Construction (check only one):		☐ Large Construction (Project will disturb five or more acres of land.) ☒ Small Construction (Project will disturb one or more acres but less than five acres of land.)	
B. Approximate total area of land disturbance from commencement through completion of construction: Project area is less than 2.0 acres within the plant property on the northeast side of Units 3 and 4			
C. SWPPP Location:	☐ Address in Part II above ☒ Address in Part III above ☐ Other address (specify below)		
D. SWPPP Address:			
E. City:	F. State:	G. Zip Code:	
H. Construction Period:	Start Date:	Completion Date:	

V. DISCHARGE INFORMATION:

A. MS4 Operator Name (if applicable):
B. Receiving Water Name: NA (Existing Stormwater Management System)

VI. CERTIFICATION¹:

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

Responsible Authority Name and Official Title (Type or Print):
William M. Reichel, Martin Plant General Manager

X *Chf Cont for William Reichel*
 Responsible Authority Signature:

X *8/4/09*
 Date Signed:

¹ Signatory requirements are contained in Rule 62-620.305, F.A.C.

Stormwater Pollution Prevention Plan for FPL's Martin Plant Demineralized Water Make-up System Upgrade

I.0 Introduction

Florida Power & Light Company (FPL) is installing a new 400 gpm reverse osmosis plant, including the necessary electrical switching and control equipment to integrate it into the existing Martin power generation facility in Indiantown, FL. The construction activities associated with this project will disturb on the order of two acres within the facility. To satisfy the requirements of the National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge from Large and Small Construction Activities, this Stormwater Pollution Prevention Plan has been developed.

To satisfy the requirements of the National Pollution Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharge from Construction Activities, authorized under the provisions of Section 403.0885, Florida Statutes and applicable rules of the Florida Administrative Code, this Pollution Prevention Plan has been implemented.

1.1. Environmental Background

In 2001, the U.S. Environmental Protection Agency delegated the NPDES stormwater program to the state of Florida. The program is administered by the FDEP.

Under the NPDES Generic Permit for Storm Water Discharge from Construction Activities, the FDEP requires the development and implementation of a stormwater pollution prevention plan. A pollution prevention plan for construction is designed to reduce pollution at the construction site before it can cause environmental problems.

1.2. Project Description

The 400 gpm reverse osmosis Water Plant Project will be built on an existing concrete pad. The construction area surrounding the pad will be graded. Utilities will be provided via trenches to the new water plant.

1.3 Contact Information

The Demineralized Water Make-up system contractor is MPW and the Regional Service Manager, Sam Hawkins, can be contacted 24 hours a day at 330-623-5041. The FPL Construction Manager is responsible for the overall project including environmental compliance and can be contacted by calling the Martin Plant Control Room 24 hours a day at 772-597-7400.

2.0 Site Description

The existing facility consists of 2 nominal 800MW conventional cycle units (Units 1 & 2), 2 nominal 450MW combined cycle units (Units 3 & 4), and 1 nominal 1100 MW combined cycle unit (Unit 8).

2.1 Site Location

The 400 GPM Reverse Osmosis Project will be constructed northeast of units 3 & 4 and southeast of units 1 & 2.

The street address of the Martin Plant is 21900 SW Warfield Blvd, Indiantown, FL 34956.

The Martin Plant is owned and operated by FPL, with corporate headquarters at 700 Universe Boulevard, Juno Beach, FL 33408.

2.2 Topography

The existing topography is between plant elevations 32 to 30.

2.3 Drainage

This project is being constructed at the Martin Power Plant. The existing stormwater management system has been designed to manage stormwater for the 25-year, 72-hour storm and is adequate for this project.

2.5 Runoff Quality

No surface water data is available for the 400 gpm Reverse Osmosis construction project. However, based on the limited discharge quantity and the treatment of runoff through the existing stormwater management system, adverse impacts to surface waters due to construction site runoff are not anticipated.

2.6 Adjacent Land Uses

The Martin Plant is located on 14,400 acres of FPL-owned land in Martin County. It lies approximately 7 miles northwest of downtown Indiantown, FL on Highway 710.

The 400 gpm Reverse Osmosis project area is less than 2.0 acres within the plant property on the northeast side of Units 3&4.

3.0 Site Construction Plan

3.1 Construction Activities

The area proposed for the 400 gpm Reverse Osmosis project is an existing concrete pad. There is a grassy area which will require some soil disturbing activities to provide utilities to and from the project. The area currently consists of pervious materials. Soil disturbing activities will include excavation, backfill, and final grading.

A record of the project site construction activities must be maintained as part of this Plan. Appendix A includes a form and instructions to record such information on an ongoing basis.

3.2 Construction Sequence

Construction activities are sequenced generally following the sequence indicated below:

At mobilization the contractor will do the following:

- Setup construction trailer
- Designate the laydown area and control the offloading of deliveries
- Install major components
- Install underground utilities
- Erect major equipment
- Finish site grading.
- Final site stabilization

4.0 Storm Water Management Plan

This Storm Water Management Plan was designed to follow FDEP and South Florida Water Management District guidelines. Control of site runoff will be by means of the existing storm water management system.

4.1 General Description of Storm Water Management System

There is very limited potential for storm water runoff pollution during construction of the 400 gpm Reverse Osmosis project. This risk will be minimized through the use of control measures implemented during the construction sequence.

This storm water pollution prevention plan was prepared in accordance with the FDEP guidance document entitled *Generic Permit for Storm Water Discharge from Large and Small Construction Activities*, (FDEP Document No. 62-621.300(4) (a), May 2003), and South Florida Water Management District's Best Management Practices.

5.0 Stormwater Control Measures

5.1 Erosion and Sediment Control

Erosion will be controlled by preserving natural vegetation where practical, by conducting maintenance of the relatively flat grades, and by implementing other appropriate erosion control techniques. Sedimentation will be controlled during construction through the existing stormwater management system of ditches and swales which ultimately drain to a detention basin. The existing stormwater system is designed and constructed for the 25-year, 72-hour storm. Other sedimentation control devices such as silt fences and hay bale dikes may be employed in the immediate project area if needed.

5.2 Controls for Other Potential Pollutants

Pollutants from sources other than ground disturbing activities have the potential to enter the storm water system during project construction. A description of such potential pollutants and the control measures proposed to reduce the risk of storm water pollution are provided below.

Fugitive Dust

Fugitive dust may be generated during dry weather conditions. The FPL Construction Site Manager, or his authorized designee, will direct dust control activities. Water sprays, the placement of aggregate or shell rock, and physical or vegetative stabilization practices will be used for dust control as appropriate.

Petroleum Products and Chemicals

All onsite construction vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in double contained vessels. Any soil contaminated by petroleum products will be immediately cleaned up and removed to an approved storage or disposal site, and ultimately disposed of in accordance with applicable regulations.

Construction Waste Materials

Any waste materials generated during construction will be collected and stored in labeled metal or plastic dumpsters and removed from the construction site by FPL. Dumpsters will meet required local and state solid waste management regulations. All trash and construction debris will be deposited in dumpsters. The dumpsters will not be overfilled. No construction waste materials will be buried onsite. All construction personnel will be instructed regarding the correct procedure for waste disposal. The MPW Site Manager will be responsible for overall compliance with these procedures.

Hazardous Materials and Wastes

Hazardous materials and wastes will not be stored in the construction area. All paint/solvent containers will be tightly sealed and properly stored to prevent leaks or spills. Storage will be in a rain-protected area. Unused paints or cleaners will be disposed of according to local and/or state regulations.

Fertilizers/Pesticides

Fertilizers and pesticides will not be used in the construction area.

Equipment and Concrete Truck Wash Areas

A washout area designed specifically for the purpose of washing out equipment and concrete trucks will be established and maintained. With the exception of the above mentioned activities, large equipment and concrete trucks will not be washed in the project area.

Non-Storm Water Discharges

It is expected that the following non-storm water discharges may occur onsite during the construction period:

- Water from excavations (i.e. uncontaminated groundwater) will be pumped to an area adjacent to the construction site to percolate back into the soil. Dewatering will be performed in accordance with FDEP'S Generic Permit for Discharge of Produced Ground Water From any Non-Contaminated Site Activity.
- Water for dust control.

- Vegetation watering; irrigation drainage.
- Potable water discharges.
- Water from hydrostatic testing of a short section of carbon steel pipe will be pumped to an area adjacent to the construction site to percolate back into the soil. No chemicals will be added to the hydrostatic test water.

5.3 Inventory for Pollution Prevention Plan

Following is a partial list of materials that may be present onsite during construction:

- Wood
- Concrete
- Asphalt
- Steel (some of which is galvanized)
- Detergents
- Paints (non-lead based, less than 10 gallons) and aerosol cans
- Petroleum Based Products (lubricants, less than 50 gallons, and fuels, 550 gallons stored in a double wall self contained fuel tank)
- Solvents (less than 50 gallons)
- Batteries

Material Safety Data Sheets (MSDS) and records of the quantities of any chemical products will be kept onsite and provided to FPL for their records.

5.4 Timing of Controls/Measures

Erosion and sediment controls will be in place prior to the start of construction and maintained throughout construction. The storm water management system will be the first system installed onsite. Once construction/restoration activities stop, the area will be permanently stabilized. After the entire site is stabilized, any accumulated sediment will be removed.

5.5 Water Quality Monitoring

We do not expect to discharge stormwater offsite. However, if discharge offsite is required, storm water quality will be monitored prior to discharge. Weekly turbidity, oil/grease (visual), and pH field tests will be performed if discharge occurred that week. Copies of the results must be kept with the storm water management plan.

6.0 Material Management Practices

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff.

6.1 Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project:

- Containers for general waste collection (i.e., non-regulated materials) will be placed around the project area.
- All construction materials/equipment stored onsite will be stored in a neat, orderly manner in appropriate containers.

6.2 Maintenance and Inspection Procedures

The inspection and maintenance practices that will be used to maintain erosion and sediment controls at the project area are listed below. The Storm Water Management System Weekly Inspection Form included as Appendix B of this plan addresses items for weekly inspection. Documentation will be retained onsite for the duration of the construction project.

- All control measures will be inspected at least once each week and following any storm event of 0.50 inches or greater.
- All control measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report and completed within 7 days.
- Built up sediment will be removed from the silt fence (if installed) when it has reached one-third the height of the fence.
- Silt fence (if installed) will be inspected for depth of sediment, tears, to see if fabric is securely attached to the fence posts and to see that fence posts are firmly in the ground.
- Hay bales (if used) will be replaced before the condition of the hay bale deteriorates to render it ineffective for erosion control.

The MPW Site Manager will designate one or more individuals, as needed, to be responsible for inspections, maintenance, repair, and reporting activities. The selected personnel will receive instruction from the Contractor Site Manager or qualified designee.

6.3 Spill Prevention and Response

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill / leak prevention and cleanup:

- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials may include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery. All work in progress in the area where the release occurred shall cease until cleanup is completed. Any work affecting the area must also be stopped.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury.
- Spills of petroleum products will be reported to the appropriate State or local government agency according to regulations and ordinances.
- A description of the spill, what caused it, and the cleanup measures will be recorded.
- The FPL Construction Manager will be notified immediately of any spill.

The MPW Site Manager will be responsible for the day-to-day site operations.

7.0 Contractor Certifications

All contractors and subcontractors responsible for implementing the storm water management and control measures identified in this plan during the 400 gpm Reverse Osmosis construction project must sign a copy of the certification statement.