

APPENDIX 10.2.2.1

**INDUSTRIAL WASTEWATER FACILITY PERMIT APPLICATION
#FL0001562-004-IWIN
June 2009**



WASTEWATER FACILITY OR ACTIVITY PERMIT APPLICATION FORM 1 GENERAL INFORMATION

I - IDENTIFICATION NUMBER:

Facility ID FL0001562

II - CHARACTERISTICS:

INSTRUCTIONS: Complete the questions below to determine whether you need to submit any permit application forms to the Department of Environmental Protection. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the blank in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements. See Section B of the instructions. See also, Section C of the instructions for definitions of the terms used here.

SPECIFIC QUESTIONS	YES	NO	FORM ATTACHED
A. Is this facility a domestic wastewater facility which results in a discharge to surface or ground waters?		X	
B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters?		X	
C. Does or will this facility (other than those describe in A. or B.) discharge process wastewater, or non-process wastewater regulated by effluent guidelines or new source performance standards, to surface waters?		X	2CS
D. Does or will this facility (other than those described in A. or B.) discharge process wastewater to ground waters?	X		2CG
E. Does or will this facility discharge non-process wastewater, not regulated by effluent guidelines or new source performance standards, to surface waters?		X	
F. Does or will this facility discharge non-process wastewater to ground waters?	X		0127512-002-UO
G. Does or will this facility discharge stormwater associated with industrial activity to surface waters?		X	
H. Is this facility a non-discharging/closed loop recycle system?		X	
I. Is this facility a public water system whose primary purpose is the production of potable water for public consumption and which discharges demineralization concentrate to surface water or groundwater?		X	

III - NAME OF FACILITY: (80 characters and spaces)

FPL Turkey Point Power Plant (Units 1-7)

IV - FACILITY CONTACT: (A. 30 characters and spaces)

A. Name and Title (Last, first, & title)	B. Phone (area code & no.)
Jefferson, William, Plant Vice President	305-246-6113

V - FACILITY MAILING ADDRESS: (A. 30 characters and spaces; B. 25 characters and spaces)

A. Street or P.O. Box: 9760 S.W. 344 Street		
B. City or Town: Florida City	State: FL	Zip Code: 33035

VI - FACILITY LOCATION: (A. 30 characters and spaces; B. 24 characters and spaces; C. 3 spaces (if known); D. 25 characters and spaces; E. 2 spaces; F. 9 spaces)

A. Street, Route or Other Specific Identifier: 10 mi E of Fl City on 344 St.		
B. County Name: Miami-Dade	C. County Code (if known):	
D. City or Town: Florida City	E. State: FL	F. Zip Code: 33034

VII - SIC CODES: (4-digit, in order of priority)

1. Code #: 4911	(Specify) Electric Serv	2. Code #:	(Specify)
3. Code #:	(Specify)	4. Code #:	(Specify)

VIII - OPERATOR INFORMATION: (A. 40 characters and spaces; B. 1 character; C. 1 character (if other, specify); D. 12 characters; E. 30 characters and spaces; F. 25 characters and spaces; G. 2 characters; H. 9 characters)

A. Name: Florida Power & Light Company		B. Is the name in VIII A. the owner? ☒ Yes ☐ No	
C. Status of Operator: F = Federal; S = State; P = Private; O = Other; M = Public (other than F or S)	(code) P	(specify) Private	D. Phone No.: 305-246-6113
E. Street or P. O. Box: 9760 S.W. 344 Street			
F. City or Town: Florida City		G. State: FL	H. Zip Code: 33035

IX - INDIAN LAND:

A. Is the facility located on Indian lands?	☐ Yes ☒ No
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X - EXISTING ENVIRONMENTAL PERMITS:

A. NPDES Permit No.	B. UIC Permit No.	C. Other (specify)	D. Other (specify)
FL0001562-007IWB/MR	0127512-002-UO	See Form 1-X-C Atch.	NA

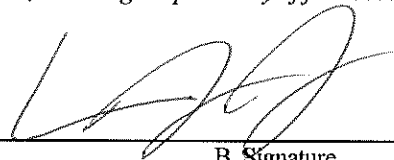
XI - MAP: Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII - NATURE OF BUSINESS (provide a brief description)

Electric Power Generating Station

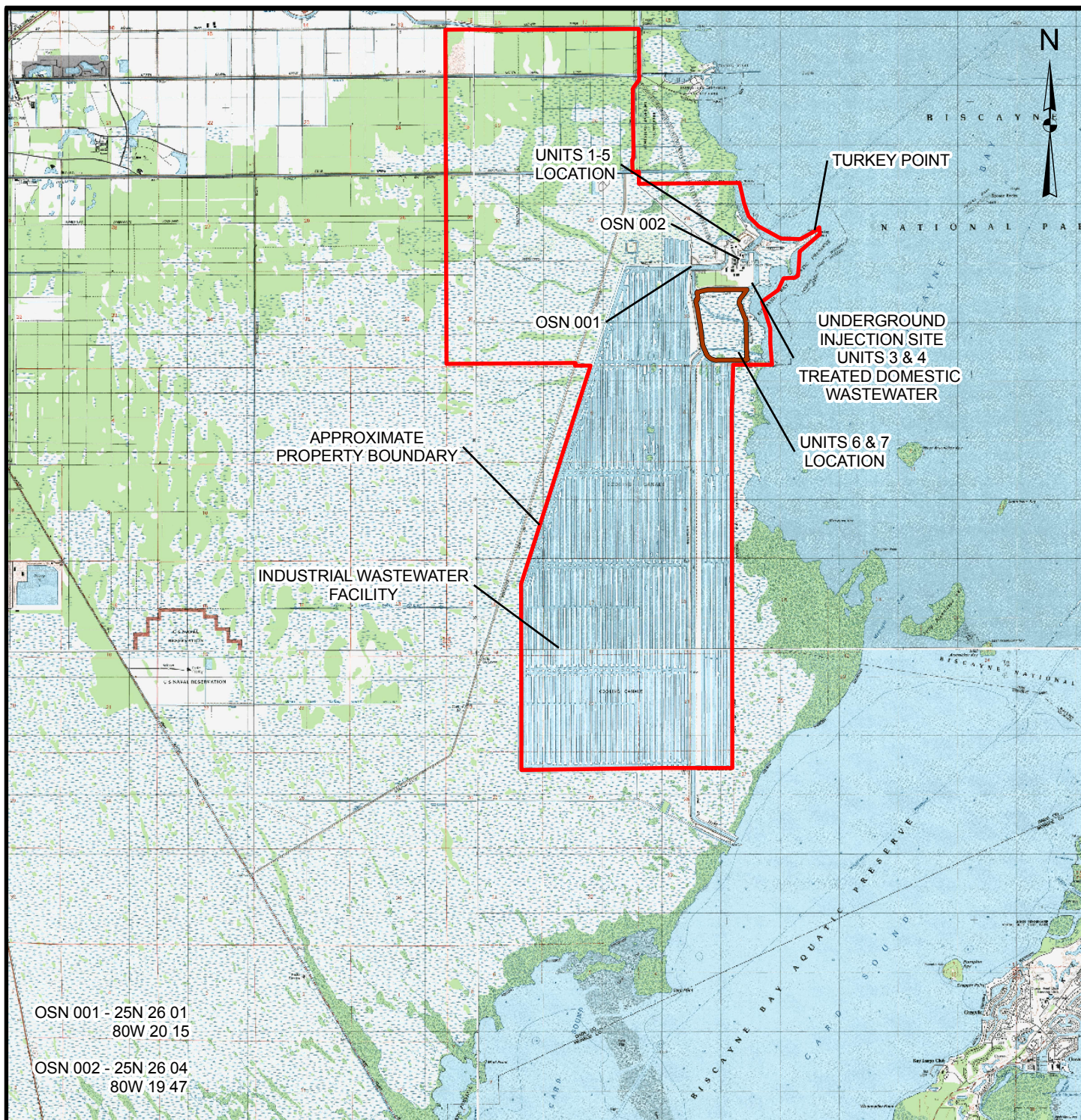
XIII - CERTIFICATION (see instructions)

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 those 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.

William Jefferson _____ A. Name (type or print) Plant Vice President _____ Official Title (type or print)	 _____ B. Signature 6/25/09 _____ C. Date Signed
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Form 1-X-C Attachment
Other Existing Permits (not listed on Form 1)
Florida Power & Light Company - Turkey Point

Permitting Agency	Permit Name	Permit Number
State of Florida Department of Environmental Protection	Domestic Wastewater	FLA013612-002-DW3P
Miami-Dade County Department of PublicWorks	Domestic Wastewater	DWO-000010-2008/2009
Miami-Dade County Department of Environmental Resources Management	Industrial Waste	IW-000003-2008/2009



LEGEND

- Turkey Point Units 6 & 7 Plant Area
- Turkey Point Plant Property

REFERENCES

1. USGS TOPOGRAPHIC MAP, 7.5 MIN. QUADRANGLE MAP SERIES: HOMESTEAD, ARSENIKER KEYS, GLADES, AND CARD SOUND QUADRANGLES, FLORIDA.

PROJECT

TURKEY POINT UNITS 6 & 7
PROJECT

TITLE

FORM I - XI ATTACHMENT
SITE LOCATION MAP



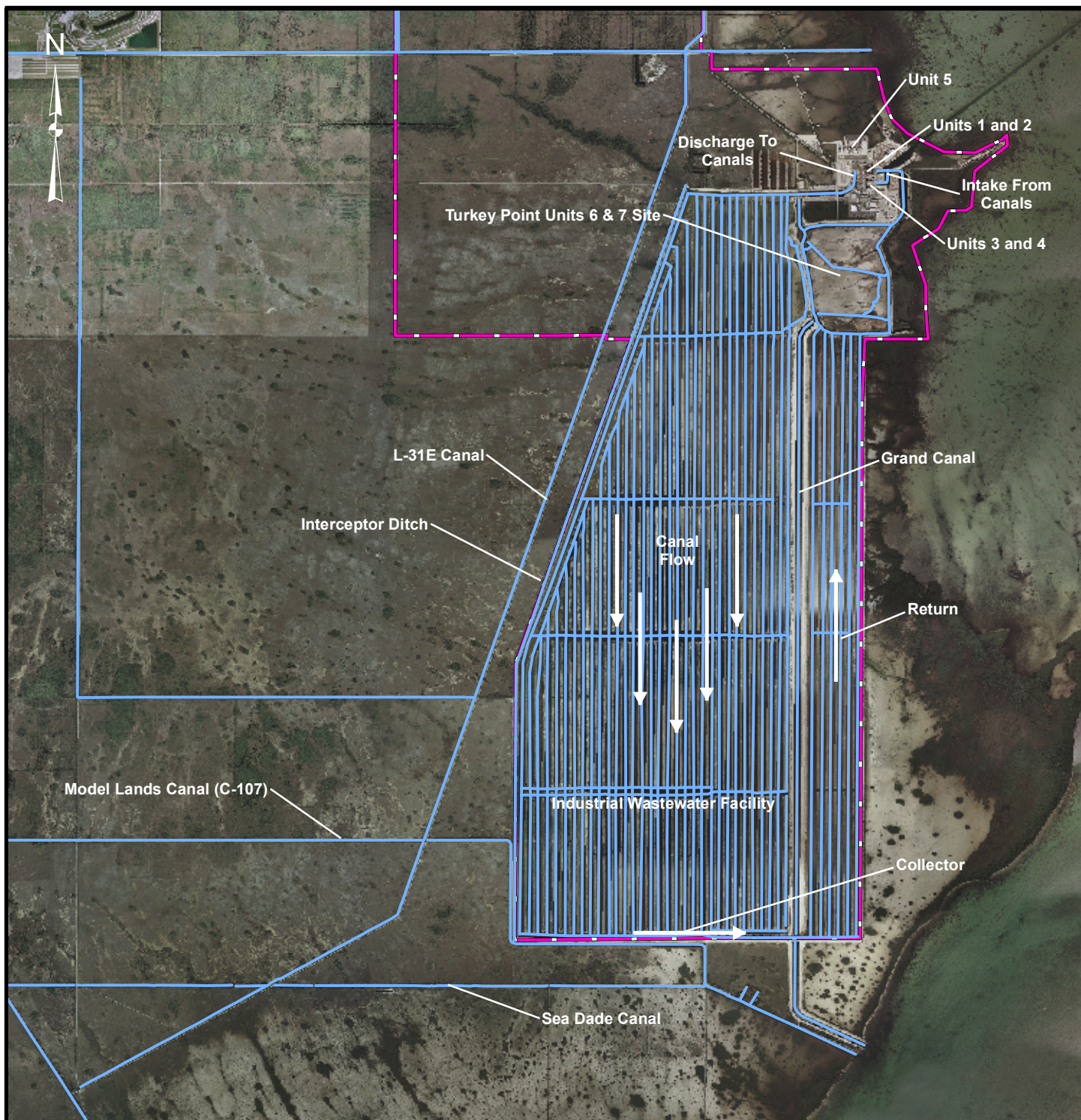
FILE No. 08387584Q001

REV. 0

PLOT DATE 6/14/2009

FIGURE

1



LEGEND

- Canals
- - - Turkey Point Plant Property

REFERENCES

1. Imagery, Miami-Dade County, 2007.

PROJECT

**TURKEY POINT UNITS 6 & 7
PROJECT**

TITLE

**FORM I - XI ATTACHMENT
TURKEY POINT COOLING CANAL SYSTEM**



FILE No. 08387584Q002

REV. 0

PLOT DATE 6/14/2009

FIGURE

2

FORM 2CS



WASTEWATER APPLICATION FOR PERMIT TO DISCHARGE PROCESS WASTEWATER FROM NEW OR EXISTING INDUSTRIAL WASTEWATER FACILITIES TO SURFACE WATERS

Facility I.D. Number: FL0001562

Please print or type information in the appropriate areas.

I OUTFALL LOCATION For each outfall, list the X,Y coordinates and the name of the receiving water.

(latitude/longitude to the nearest 15 seconds)

A. Outfall No. (List)	B. Latitude			C. Longitude			D. Name of Receiving Water
	Deg.	Min.	Sec.	Deg.	Min.	Sec.	
NA	NA	NA	NA	NA	NA	NA	These are internal outfalls that discharge to the Closed-loop Cooling Canal System
002	NA	NA	NA	NA	NA	NA	
							No Discharge to Waters of the U.S.

II OUTFALL DESIGN

A. Outfall No. (List)	B. Design Configuration and Construction Materials	C. Distance from shore	D. Diameter	E. Elevation of Discharge Invert (MSL)	F. Receiving Water Depth at POD (MSL)
NA	NA	NA	NA	NA	NA

III RECEIVING WATER INFORMATION

For each surface water that will receive effluent, supply the following information:

A. Name of Receiving Water	B. Check One		C. Classification (See Ch. 62-302, F.A.C.)	D. Type of Receiving Water (canal, river, lake, etc.)
	Fresh	Salt or Brackish		
NA	☐	☐	NA	NA
	☐	☐		Closed Loop Cooling
	☐	☐		Canals
	☐	☐		No Discharge to Waters
	☐	☐		Of the U.S.
	☐	☐		

E. Minimum 7-day 10-year low flow of the receiving water at each outfall (if appropriate).

F. Identify and describe the flow of effluent from each outfall to a major body of water. A suitably marked map or aerial photograph may be used.

G. Do you request a mixing zone under Rule 62-4.244, F.A.C.? If yes, for what parameters or pollutants?

IV FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B.

B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of:

1. All operations contributing wastewater to the effluent; including process wastewater, sanitary wastewater, cooling water, and stormwater runoff;
2. The average flow contributed by each operation; and
3. The treatment received by the wastewater.

Use the space on the next page. Continue on additional sheets, if necessary.

(1) Outfall No. (List)	(2) Operation(s) Contributing Flow		(3) Treatment		
	(a) Operation (list)	(b) Avg. Flow & Units	(a) Description	(b) List Code from Table 2CS-1	
002	Solids Settling Basin	17,235 gal/day	Sedimentation (Settling)	1-U	
			Chemical Treatment	2-C	
001	Closed-loop Cooling Canals	1.92 MGM	Evaporation/Sedimentation	1-F	1-U
	Unit 5 CT Blowdown	2,444 gpm	Chemical Treatment	2-F, 2-H	2-K
	Unit 5 Wastewater Sump	3,040 gpm	Physical/Chemical treatment	1-O, 1-U	2-K
	Units 6 & 7 Stormwater	No Change	Sedimentation (Settling)	1-U	
NA	Units 6 & 7 Wastewater	25 MGD (est.)	Underground Injection	4-D	

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal? ☒ Yes (complete the following table) ☐ No (go to D. below)								
(1) Outfall No. (List)	(2) Operation(s) Contributing Flow(List)	(3) Frequency		(4) Flow				
		(a) Days per Week (specify avg.)	(b) Months per Yr. (specify avg.)	(a) Flow Rate (in mgd)		(b) Total Volume (specify with units)		(c) Duration (in days)
				Long Term Avg.	Max. Daily	Long Term Avg.	Max. Daily	
002	Solids Settling Basin	0-7	0-12	.01724	NA	NA	NA	NA

D. Describe practices to be followed to ensure adequate wastewater treatment during emergencies such as power loss and equipment failures causing shutdown of pollution abatement equipment of the proposed/permitted facilities.

E. List the method(s) and location(s) of flow measurement.

V PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ Yes (complete Item V-B) ☐ No (go to Section VI)

B. Are the limitations in the applicable guideline expressed in terms of production (or other measure of operation)?

☐ Yes (complete Item V-C) ☒ No (go to Section VI)

C. If you answered "yes" to Item V-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. Affected Outfalls (list outfall nos.)
a. Quantity per Day	b. Units of Measure	c. Operation, Product, Materials, Etc. (specify)	
NA	NA	NA	NA

VI IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement order, enforcement compliance schedule letter, stipulations, court orders, and grant or loan conditions.

☐ Yes (complete the following table) ☒ No (go to Item VI-B)

1. Identification of Condition, Agreement, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	a. No.	b. Source of Discharge		a. Required	B. Projected
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ Mark "X" if description of additional control programs is attached.

VII INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding--Complete one set of tables for each outfall -- Annotate the outfall number in the space provided. NOTE: Tables VII-A, VII-B, and VII-C are included on separate sheets number VII-1 through VII-9.

D. Use the space below to list any of the pollutants listed in Table 2CS-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. Pollutant	2. Source	1. Pollutant	2. Source
Dimethyl amine	Boiler/StmGen Blowdown	NA	NA

VIII POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item VII-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or by-product?

☐ YES (list all such pollutants below) ☒ NO (go to IX)

NA

IX BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (identify the test(s) and describe their purposes below) ☒ NO (go to Section X)

NA

X CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☐ YES (list the name, address, telephone number, and certification number of, and pollutants analyzed by each such laboratory or firm below) ☒ NO (go to Section XI)

A. Name	B. Address	C. Telephone (area code & no.)	D. Pollutants Analyzed (list)
NA	NA	NA	NA

XI CONNECTION TO REGIONAL POTW

A. Indicate the relationship between this project and area regional planning for wastewater treatment. List steps to be taken for this industrial wastewater facility to become part of an area-wide wastewater treatment system.

FPL has been working with Miami-Dade Water and Sewer Department (MDWASD) to make the Turkey Point Plant part of the area-wide wastewater treatment system. Turkey Point Units 6 & 7 will use reclaimed water from MDWASD as makeup water to the circulating water system. When reclaimed water is fully available, the Turkey Point facility may utilize up to 90 MGD. Domestic wastewater generated by the facility will be managed onsite and will not be released to the area-wide wastewater treatment system.

XII-A CERTIFICATIONS FOR NEW OR MODIFIED FACILITIES

This is to certify the engineering features of this pollution control project have been designed by me and found to be in conformity with sound engineering principles, applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules of the Department. It is also agreed that the undersigned, if authorized by the owner, will furnish the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

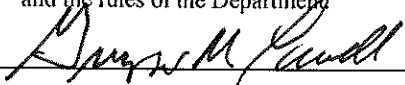
_____ Signature	_____ Company Name
_____ Name (please type)	_____ Address NA
_____ (Affix Seal)	_____ NA
	_____ NA
	_____ Florida Registration No.: NA
	_____ Telephone No.: NA
	_____ Date

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.

_____ Name & Official Title (Please type or print)	_____ Signature
_____ Telephone No. (area code & No.)	_____ Date Signed

XII-B CERTIFICATIONS FOR PERMIT RENEWALS

This is to certify the engineering features of this pollution control project have been examined by me and found to be in conformity with sound engineering principles, applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules of the Department.



Signature

Gregory M. Powell

Name (please type)

(Affix Seal)

Golder Associates, Inc (Certificate of Authorization No. 1670)

Company Name

Address 9428 Baymeadows Road

Suite 400

Jacksonville, FL 32256

Florida Registration No.: 31165

Telephone No.: 904-363-3430

Date 6/23/09

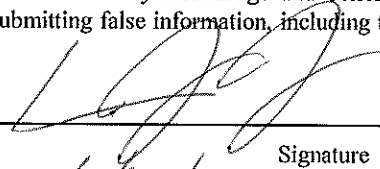
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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.

William Jefferson, Plant Vice President

Name & Official Title (Please type or print)

305-246-6113

Telephone No. (area code & No.)



Signature

6/25/09

Date Signed

Form 2CS Attachment Summary

Florida Power & Light Company – Turkey Point Plant

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I.A, B, C & D: These internal outfalls discharge to closed-loop cooling canals, which are also an industrial wastewater facility. There is no discharge to waters of the U.S. and no discharge to surface waters of the State. The cooling canals are not lined; therefore, there may be a release to Class G-III groundwater.

IB & C: Latitude and Longitude are not shown for purposes of Homeland Security pursuant to federal regulations found at 18 CFR 388.113(c)(i) and (ii) and by Presidential Directive dated December 17, 2003.

II.A through F: Not Applicable. There is no discharge to waters of the U.S. and no discharge to surface waters of the State.

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III. A through G: Not Applicable. There is no discharge to waters of the U.S. and no discharge to surface waters of the State.

Page 17

IV.A. See Attachment III.A: FPL Turkey Point Power Plant General Plant Description

IV.A. See Attachment III.A-1: Flow Diagram Turkey Point Fossil Plant Units 1 & 2.

IV.A. See Attachment III.A-2: Flow Diagram Turkey Point Nuclear Plant Units 3 & 4.

IV.A. See Attachment III.A-3: Flow Diagram Turkey Point Combined Cycle Plant Unit 5.

IV.A. See Attachment III.A-4: Flow Diagram Turkey Point Nuclear Plant Units 6 & 7.

IV.B. See Attachment III.B-1: Operations Contributing Wastewater to the Internal Outfalls.

IV.B. See Attachment III.B-2: Plant Maintenance Activities, For All Units.

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IV.D See Attachment III.D-1: Practices to Ensure Wastewater Treatment during Power Loss.

IV.E Flows are metered at the water supplies.

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VII.A, B, & C, Including Tables VII-A, VII-B and VII-C: Zero discharge facility. No point source discharges to waters of the U.S. or surface waters of the State. No discharge point to

groundwater of State. All internal outfalls discharge to closed-loop cooling canals/industrial wastewater facility.

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VIII. Potential Discharges: The following chemicals are used at the facility for the following purposes:

Continuum AEC3145 and Corshield MD4100	Cooling Tower
Inhibitors AZ8101 and OP8413	Cooling Tower
Sulfuric acid	Cooling Tower
Sodium hypochlorite	Cooling Tower
Foamtrol AF2290	Cooling Tower
Biocides such as Spectrus CT1300 or equivalent	Cooling Tower
Soda ash, polymer, hydrated lime,	Water Treatment Chemicals
Betz Dearborn DCL30, Hypersperse MDC120	Water Treatment Chemicals
Kleen MCT103 and MCT511	Water Treatment Chemicals
ROClean L212, ROClean L403, ROClean P111, ROClean L811	RO Membrane Cleaning
Hydrazine, carbohydrazide, monoethanolamine (EIA)	Boiler/Steam Gen Blowdown
Molybdate, Tolytriazole and Nitrite	Aux Equipment Cooling System

A minor revision has been submitted to FDEP to change chemical vendors to supply equivalent products. The revision was approved by FDEP on April 15, 2009 as a minor revision C to Industrial Wastewater Permit Number FL0001562.

FORM 2CG



WASTEWATER APPLICATION FOR PERMIT TO DISCHARGE PROCESS WASTEWATER FROM NEW OR EXISTING INDUSTRIAL WASTEWATER FACILITIES TO GROUND WATER

Facility I.D. Number: FL0001562

Please print or type information in the appropriate areas.

I DISCHARGE LOCATION For each location, list the X,Y coordinates and, where applicable, the name of the land application site.

(latitude/longitude to the nearest 15 seconds)

A. Discharge Location No. (list)	B. Latitude			C. Longitude			D. Name of Land Application
	Deg.	Min.	Sec.	Deg.	Min.	Sec.	
001	NA	NA	NA	NA	NA	NA	These are internal outfalls that discharge
002	NA	NA	NA	NA	NA	NA	to the Closed-loop Cooling Canal System
							No Discharge to Waters of the U.S.

II LAND APPLICATION DESIGN

A. Discharge No.	B. Design Configuration and Construction Materials	C. Cover Crop	D. Application Rate	E. Land Application Area	F. Ground Water
NA	NA	NA	NA	NA	NA

III FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and discharge points. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each discharge location, provide a description of:

1. All operations contributing wastewater to the effluent; including process wastewater, sanitary wastewater, cooling water, and storm water runoff;
2. The average flow contributed by each operation; and
3. The treatment received by the wastewater.

Use the space below. Continue on additional sheets, if necessary.

(1) Discharge Location No.	(2) Operation(s) Contributing Flow		(3) Treatment		
	(a) Operation (list)	(b) Avg. Flow & Units	(a) Description	(b) List Code from Table 2CG-1	
002	Solids Settling Basin	17,235 gal/day	Sedimentation (Settling)	1-U	
			Chemical Treatment	2-C	
001	Closed-loop Cooling Canals	1.92 MGM	Evaporation/Sedimentation	1-F	1-U
	Unit 5 CT Blowdown	2,444 gpm	Chemical Treatment	2-F, 2-H	2-K
	Unit 5 Wastewater Sump	3,040 gpm	Physical/Chemical Treatment	1-O,1-U	2-K
	Units 6 & 7 Stormwater	No Change	Sedimentation (Settling)	1-U	
NA	Units 6 & 7 Wastewater	25 MGD (est.)	Underground Injection	4-D	

III Contd.

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☒ Yes (complete the following table)

☐ No (go to D. below)

(1) Outfall # (List)	(2) Operations(s) Contributing Flow (List)	(3) Frequency		(4) Flow				
		(a) Days per Week (specify avg.)	(b) Months per Yr. (specify avg.)	(c) a) Flow Rate (in mgd)		(d) b) Total Volume (specify with units)		(e) Duration (in days)
				Long Term Avg	Max. Daily	Long Term Avg.	Max. Daily	
002	Solids Settling Basin	0-7	0-12	0.01724	NA	NA	NA	NA

*For land application systems, also include the Rest Period.

D. Describe practices to be followed to ensure adequate wastewater treatment during emergencies such as power loss and equipment failures causing shutdown of pollution abatement equipment of the proposed/permitted facilities.

E. List the method(s) and location(s) of flow measurement.

IV IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ Yes (complete the following table)

☒ No (go to Item VI-B)

1. Identification of Condition, Agreement, Etc.	2. Affected Discharge Locations		3. Brief Description of Project	4. Final Compliance Date	
	a. No.	b. Source of Discharge		a. Required	b. Projected
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ Mark "X" if description of additional control programs is attached.

V INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding--Complete one set of tables for each discharge location -- Annotate the location number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets number V-1 through V-10.

D. Use the space below to list any of the pollutants listed in Table 2CG-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. Pollutant	2. Source	1. Pollutant	2. Source
Dimethyl amine	Boiler/ StmGen Blowdown	NA	NA

VI POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or by-product?

☐ YES (list all such pollutants below) ☒ NO (go to VII)

NA

VII CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (list the name, address, telephone number, and certification number of, and pollutants analyzed by each such laboratory or firm below)
☒ NO (go to Section VIII)

A. Name	B. Address	C. Telephone (area code & no.)	D. Pollutants Analyzed (list)
NA	NA	NA	NA

VIII CONNECTION TO REGIONAL POTW

A. Indicate the relationship between this project and area regional planning for wastewater treatment. List steps to be taken for this industrial wastewater facility to become part of an area-wide wastewater treatment system.

FPL has been working with Miami-Dade Water and Sewer Department (MDWASD) to make the Turkey Point Plant part of the area-wide wastewater treatment system. Turkey Point Units 6 & 7 will use reclaimed water from MDWASD as makeup water to the circulating water system. When reclaimed water is fully available, the Turkey Point facility may utilize up to 90 MGD. Domestic wastewater generated by the facility will be managed onsite and will not be released to the area-wide wastewater treatment system.

IX-A CERTIFICATIONS FOR NEW OR MODIFIED FACILITIES

This is to certify the engineering features of this pollution control project have been designed by me and found to be in conformity with sound engineering principles, applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules of the Department. It is also agreed that the undersigned, if authorized by the owner, will furnish the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

_____ Signature	_____ Company Name
_____ Name (please type)	_____ Address NA
_____ (Affix Seal)	_____ NA
	_____ NA
	Florida Registration No.: <u>NA</u>
	Telephone No.: _____ Date _____

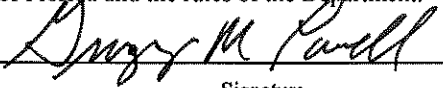
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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.

_____ Name (type or print)	_____ Signature
_____ Title	_____ Date Signed
_____ Telephone No. (area code & No.)	

Facility I.D. Number: FL0001562

IX-B CERTIFICATIONS FOR PERMIT RENEWALS

This is to certify the engineering features of this pollution control project have been examined by me and found to be in conformity with sound engineering principles, applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules of the Department.



Signature

Gregory M. Powell

Name (please type)

(Affix Seal)

Golder Associates, Inc (Certificate of Authorization No. 1670)

Company Name

Address 9428 Baymeadows Road

Suite 400

Jacksonville, FL 32256

Florida Registration No.: 31165

Telephone No.: 904-363-3430

Date

6/23/09

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.

William Jefferson

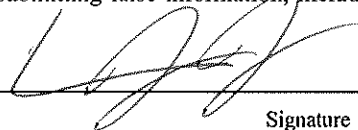
Name (type or print)

Plant Vice President

Title

305-246-6113

Telephone No. (area code & No.)



Signature

6/25/09

Date Signed

Form 2CG Attachment Summary

Florida Power & Light Company – Turkey Point Plant

Page 14

I.A, B, C & D: These internal outfalls are routed to closed-loop cooling canals, which are also an industrial wastewater facility. There are no point source discharges to waters of the U.S. and no discharge to surface waters of the State. The cooling canals are not lined; therefore, there may be a release to Class G-III groundwater.

1B & C: Latitude and Longitude are not shown for purposes of Homeland Security pursuant to federal regulations found at 18 CFR 388.113(c)(i) and (ii) and by Presidential Directive dated December 17, 2003.

II.A, B, C, D, E & F: There is no Land Application at this facility and no discharge point to groundwater. The groundwater is Class G-III.

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III.A. See Attachment III.A: FPL Turkey Point Power Plant General Plant Description

III.A. See Attachment III.A-1: Flow Diagram Turkey Point Fossil Plant Units 1 & 2.

III.A. See Attachment III.A-2: Flow Diagram Turkey Point Nuclear Plant Units 3 & 4.

III.A. See Attachment III.A-3: Flow Diagram Turkey Point Combined Cycle Plant Unit 5.

III.A. See Attachment III.A-4: Flow Diagram Turkey Point Nuclear Plant Units 6 & 7.

III.B. See Attachment III.B-1: Operations Contributing Wastewater to the Internal Outfalls.

III.B. See Attachment III.B-2: Plant Maintenance Activities, For All Units.

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III.D See Attachment III.D-1: Practices to Ensure Wastewater Treatment during Power Loss.

III.E Flows are metered at the water supplies.

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V.A, B, & C, Including Tables V-A, V-B and V-C: Zero discharge facility. No point source discharges to waters of the U.S. or surface waters of the State. No discharge point to groundwater of State. All internal outfalls are routed to closed-loop cooling canals/industrial wastewater facility.

VI. Potential Discharges: The following chemicals are used at the facility for the following purposes:

Continuum AEC3145 and Corrshield MD4100	Cooling Tower
Inhibitors AZ8101 and OP8413	Cooling Tower
Sulfuric acid	Cooling Tower
Sodium hypochlorite	Cooling Tower
Foamtrol AF2290	Cooling Tower
Biocides such as Spectrus CT1300 or equivalent	Cooling Tower
Soda ash, polymer, hydrated lime,	Water Treatment Chemicals
Betz Dearborn DCL30, Hypersperse MDC120	Water Treatment Chemicals
Kleen MCT103 and MCT511	Water Treatment Chemicals
ROClean L212, ROClean L403, ROClean P111, ROClean L811	RO Membrane Cleaning
Hydrazine, carbohydrazide, monoethanolamine (EIA)	Boiler/Steam Gen Blowdown
Molybdate, Tolytriazole and Nitrite	Aux Equipment Cooling System

A minor revision has been submitted to FDEP to change chemical vendors to supply equivalent products. The revision was approved by FDEP on April 15, 2009 as a minor revision C to Industrial Wastewater Permit Number FL0001562.

Form 2CG ATTACHMENT III.A.
FLORIDA POWER & LIGHT COMPANY
TURKEY POINT POWER PLANT
GENERAL PLANT DESCRIPTION

Florida Power & Light Company (FPL) Turkey Point Plant is located adjacent to Biscayne Bay at 9760 S.W. 344th Street, Florida City, Florida 33035. The Turkey Point plant property covers approximately 11,000 acres (Form 1-XI Attachment).

The existing facility consists of five electrical generating units: Two oil/natural gas-fired units (Units 1 and 2), two nuclear units (Units 3 and 4) and one natural gas-fired combined cycle unit (Unit 5). The two 400-MW (nominal) oil/natural gas-fired electric generation units have been in service since 1967 (Unit 1) and 1968 (Unit 2). These units currently burn residual fuel oil and/or natural gas with a maximum equivalent sulfur content of one (1) percent. The two 700-MW (nominal) nuclear units have been in service since 1972 (Unit 3) and 1973 (Unit 4). Construction, design, and operational aspects are essentially the same for both nuclear units.

Units 1 through 4 obtain their once-through condenser cooling water from, and release to, a closed-loop cooling canals/industrial wastewater facility. Process water for Units 1 and 2 is obtained from the Upper Floridan Aquifer and/or from MDWASD. Units 3 and 4 obtain process water from MDWASD.

Unit 5 is a natural gas-fired combined cycle power plant with a generating capacity of 1150-MW (nominal). Turkey Point Unit 5 began operation in 2007. Unit 5 uses cooling towers and obtains cooling water from Upper Floridan Aquifer wells. Process water is obtained from Upper Floridan wells and/or from MDWASD. Unit 5 wastewater is discharged to the closed-loop cooling canals/industrial wastewater facility.

The Turkey Point plant property includes 5,900-acres closed-loop cooling canal system that serves Units 1 through 4 for cooling and Units 1 through 5 as an industrial wastewater facility. There are no point source discharges to waters of the United States, or to surface waters of the State from the plant site.

Wastewater generated by the existing Turkey Point Plant (Units 1 through 5) consists of non-contact once through condenser cooling water (OTCW), auxiliary equipment cooling water (AECW), cooling tower blowdown, low-volume waste (LVW) and stormwater. LVW consists of chemical treatment system wastewater, boiler blowdown, heat recovery steam generator blowdown, reverse osmosis concentrate, condensate polishing system backwash water and other process wastestreams. Stormwater includes stormwater associated with industrial activity and stormwater not associated with industrial activity. LVW, equipment area stormwater and non-equipment area stormwater/drainage is released either directly to the onsite closed-loop

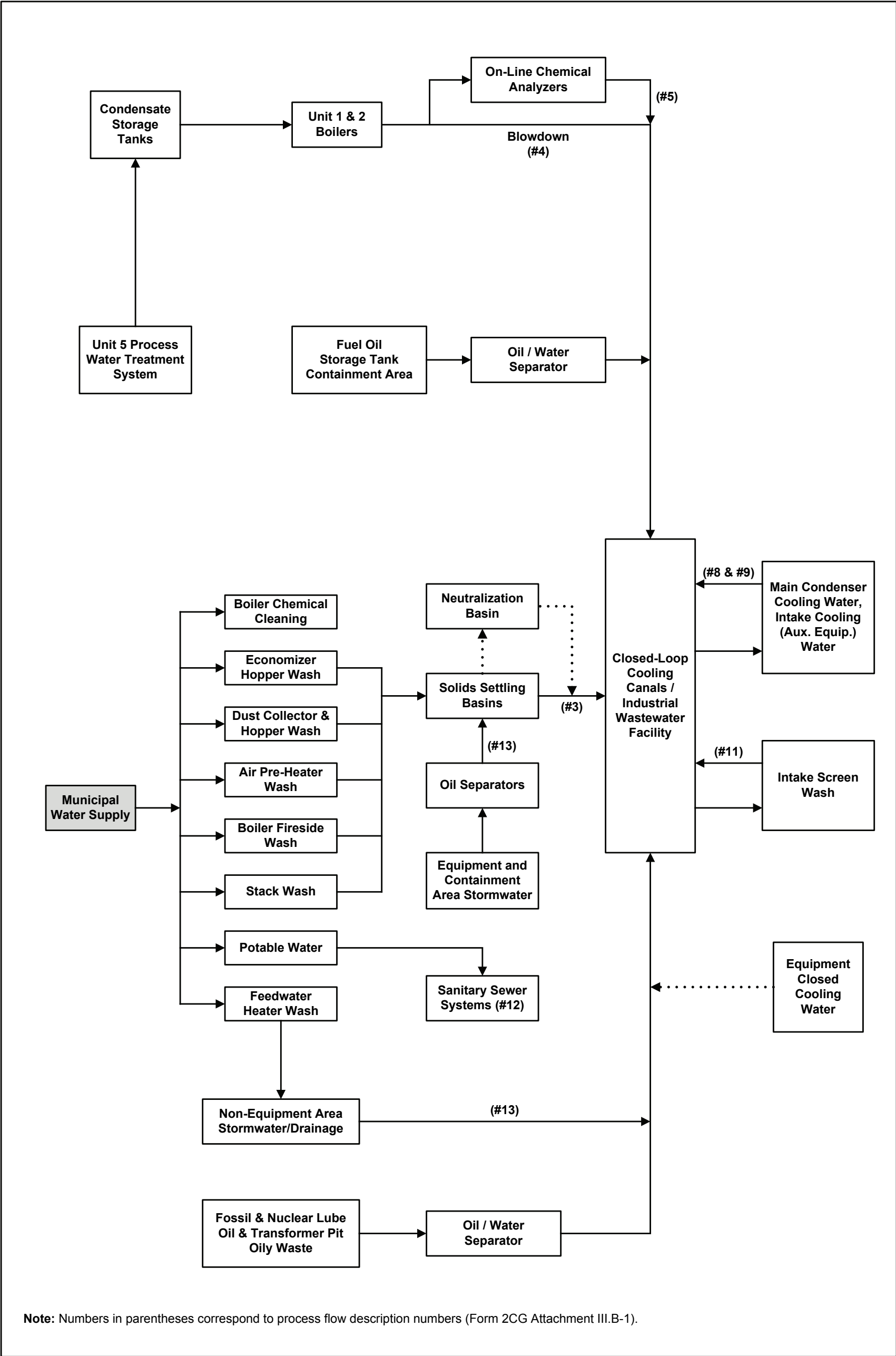
cooling canal system or indirectly to the same system after treatment via oil/water separator, solids settling basin and/or neutralization basin. The closed-loop cooling canal system does not discharge to surface waters of the state.

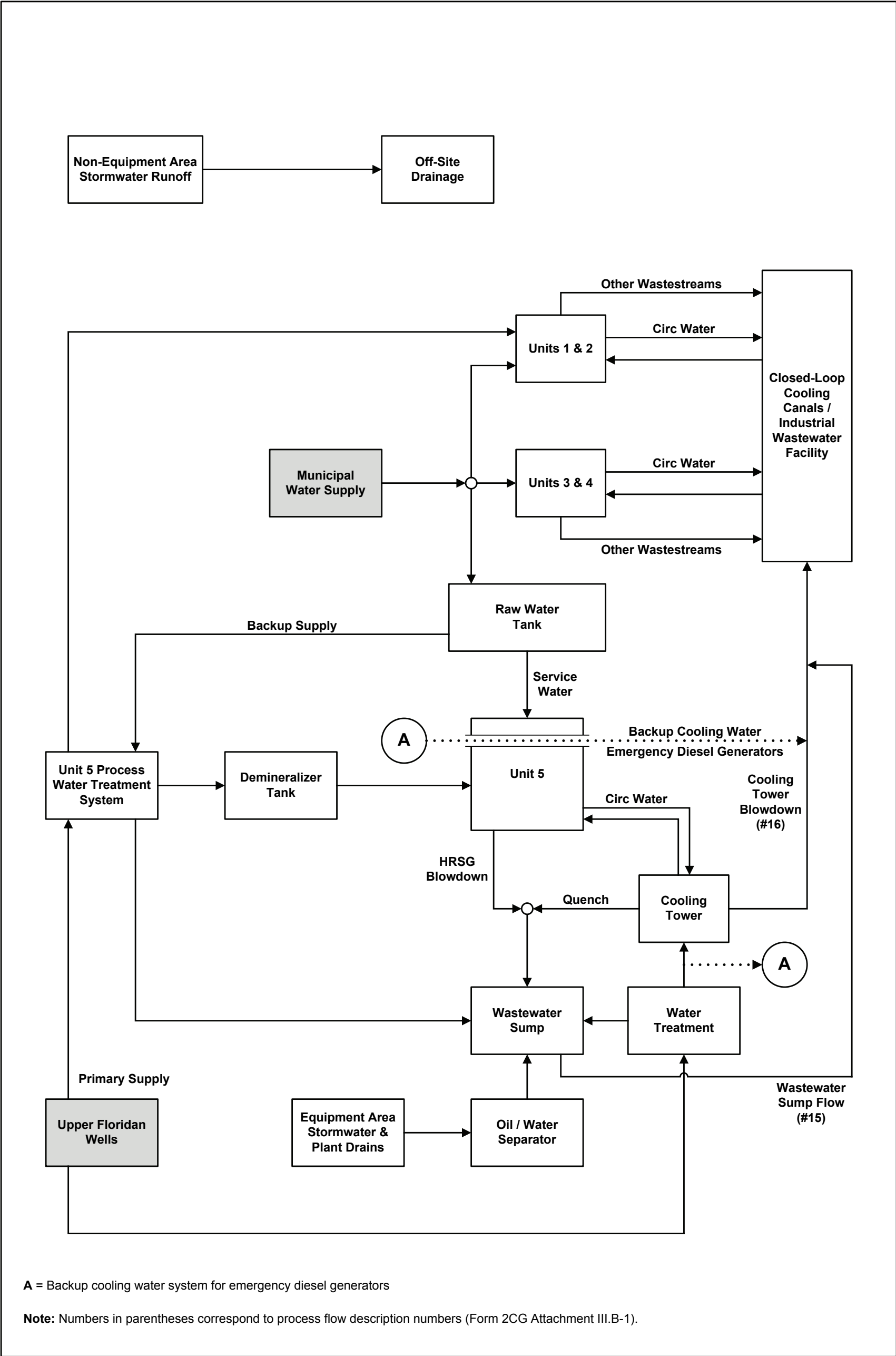
Two new nuclear units (Units 6 & 7), with in-service dates of 2018 and 2020, are proposed for the FPL Turkey Point Plant. Units 6 & 7 will contribute approximately 2,200 MW (net) of new generation to FPL's system. The Units 6 & 7 Site will be south of the existing Unit 4, within the closed-loop cooling canal system/industrial wastewater facility, on approximately 300 acres. Water for these units will be obtained from a reclaimed water supply, a saline water supply, and a potable water supply. The circulating water system will use mechanical draft cooling towers. Reclaimed water from MDWASD will be used as makeup water to the circulating water system. When reclaimed water is not available in sufficient quantity, saltwater from radial collector wells will be used as makeup for the circulating water system.

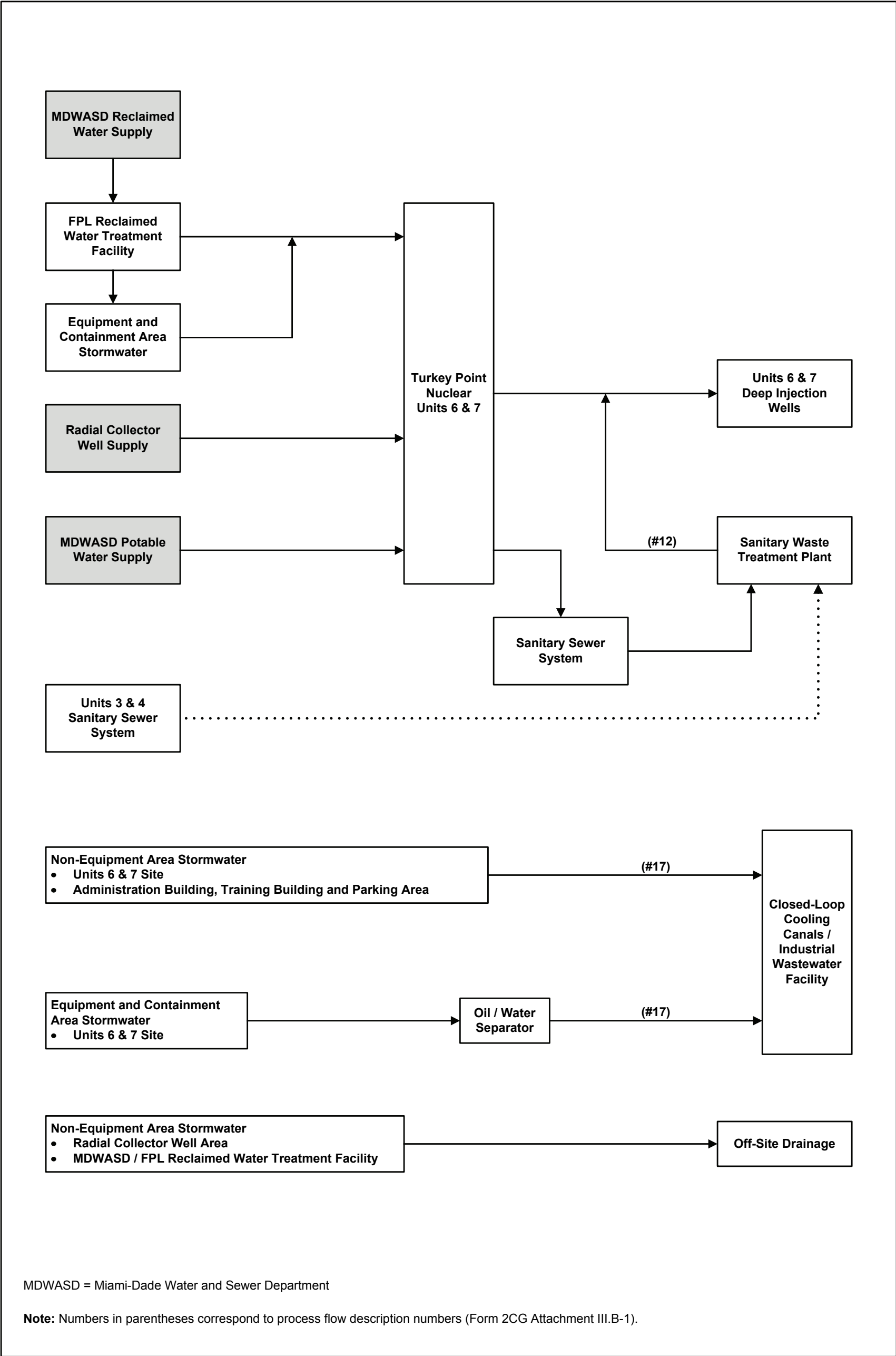
Potable water will be used as makeup water for the service water system. The potable water supply will also provide water to the potable water system, fire protection system, demineralized water treatment system and other miscellaneous uses. Cooling tower blowdown and other site wastewater streams will be collected in a common blowdown sump and injected through deep injection wells. The deep injection wells will meet the requirements established by the Florida Department of Environmental Protection (FDEP) (Rule 62.528, F.A.C.), and the underground injection control program permit. The only operational discharge from the Units 6 & 7 Site to the closed-loop cooling canal system will be stormwater.

Stormwater from the Units 6 & 7 Site and the associated nuclear administration building, training building and parking area, which is adjacent to the industrial wastewater facility, will continue to be released to the industrial wastewater facility.

A separate stormwater management system will be designed and constructed for the FPL reclaimed water treatment facility and the radial collector well area. All other wastewater generated by the operation of Units 6 & 7 will be released through the deep injection wells.







**Form 2CG Attachment III.B-1
OPERATIONS CONTRIBUTING WASTEWATER
TO THE INTERNAL OUTFALLS
FROM ALL UNITS**

Production Related Activities

Major processes and associated Units at the Turkey Point power plant, which generate wastewater as a function of steam production to generate electricity, are as follows:

<u>Major Process</u>	<u>Associated Units</u>
1. Unit 3 & 4 Make-up Water Treatment System	Nuclear
2. Boiler Make-up Water Treatment System	Fossil & Unit 5 CC
3. Combustion By-Products	Fossil
4. Boiler and HRSG Blowdown	Fossil & Unit 5 CC
5. On-line Chemical Analyzer Waste	All Units
6. Steam Generator Blowdown	Nuclear
7. Chemical Volume Control System	Nuclear
8. Main Condenser Cooling Water System	Fossil & Nuclear
9. Auxiliary Equipment Cooling Water System	Fossil & Nuclear
10. Condensate Polishers	Nuclear
11. Plant Intake Screen Wash	Fossil & Nuclear
12. Sanitary Sewer Systems	Fossil & Nuclear
13. Stormwater	Fossil, Nuclear & Unit 5 CC
14. Interceptor Ditch	All Units
15. Wastewater Treatment System	Unit 5 CC
16. Cooling Tower Blowdown	Unit 5 CC
17. Stormwater	Units 6 & 7 Nuclear
18. Wastewater	Units 6 & 7 Nuclear

1. Unit 3 & 4 Make-up Water Treatment System (Nuclear)

Municipal water is passed through a vendor-supplied water treatment system consisting of activated carbon filters for the removal of organic and inorganic suspended solids. The filtered water then passes through a reverse osmosis unit to remove total dissolved solids and silica. This is followed by a forced draft aerator for the removal of carbon dioxide. Subsequently, hydrazine is added to the influent for the deoxygenating purposes. This is then passed through an activated carbon media to catalyze the reaction, and then further treated by ion exchange bed to remove any carbon impurities or hydrazine overfeed. The effluent is further purified via a mobile flow demineralizer that removes cations and anions. The final purification involves the passing of the mixture through a cation/anion polishing mixed bed. The treated water is typically directed into storage tanks for use in the nuclear units.

All regenerations of the resin beds are performed off-site at the vendors' service center.

The carbon filters are backwashed with municipal water to remove trapped suspended solids previously filtered from the process water. The backwash water is discharged to the closed-loop cooling canals.

It is necessary to inject sulfuric acid to the influent of the reverse osmosis unit to reduce the pH to between 6.0 standard units (s.u.) and 8.5 s.u. This maintains the solubility of the calcium carbonate that is used in the reverse osmosis unit. The reject water from this process will have a pH of between 6.0 s.u. and 8.5 s.u. and is discharged to the closed-loop cooling canals.

Alternate Make-up Water Treatment System

Municipal water is passed through a coagulator and a fine sand filter to remove suspended solids and then passed through activated carbon filters for additional removal of organic and inorganic suspended solids. The softened, filtered water is further purified by passing through a cation resin bed where cations such as sodium (Na), magnesium (Mg), and calcium (Ca) are removed, and then through an anion resin bed where anions such as sulfate (SO₄) and Chlorides (Cl) are removed. Finally, it passes through a polishing mixed bed containing both cation and anion resins.

After a period of use, the anion and cation resins become exhausted and must be returned to their original adsorptive capacity (regenerated). Cation resins are regenerated with 5% H₂SO₄ (sulfuric acid) where the H⁺ replaces the cations exchanged by the resins during the demineralization process. The anion resin bed is regenerated with 5% NaOH (sodium hydroxide), where OH⁻ replaces anions exchanged by the resin during regeneration.

The sand and carbon filters are backwashed with municipal water to remove trapped suspended solids previously filtered from the process water.

Corrosive anion and cation regenerant waste (pH ≤ 2.0 s.u. or ≥ 12.5 s.u.) is sent to a totally enclosed treatment facility where the pH is adjusted to a range of between >2.0 s.u. to <12.5 s.u. This wastewater is routed to the neutralization basin where, if necessary, the pH is adjusted to ≥ 6.0 s.u. to ≤ 8.5 s.u. and then discharged to the closed-loop cooling canal system. Alternatively, the wastewater can be discharged to the closed-loop cooling canal system after the pH has been adjusted to > 6.0 s.u. to < 8.5 s.u.

2. Boiler Make-up Water Treatment System (Fossil & Unit 5 CC)

Boiler make-up for Units 1 & 2 is supplied by the Unit 5 Process Water Treatment System. The primary supply source is from Floridan aquifer wells, with backup from the municipal water supply.

3. Combustion By-Products (Fossil)

All combustion by-products waste streams from Units 1 and 2 are sent to B2 and B3 Solids Settling Basins for treatment. B2 Basin dimensions are 170 ft x 50 ft x 7.8 ft and it is a lined basin. B3 Basin dimensions are 170ft x 50 ft x 7.8 ft and the basin is lined. Soda ash and citric acid are the chemicals used in the treatment of the solids settling basins. The supernatant is discharged to the closed-loop cooling canal system or alternatively routed to the neutralization basin prior to discharge through Internal Outfall 002.

A carbon re-injection system provides a means for collecting carbon and unburned by-products of combustion in the flue gases. This carbon residue is recycled back into the boiler fire to maximize the use of combustion material. The resulting fly ash and slag contain various non-combustible compounds that are sluiced to one of the two solids settling basins. Combustion residue is also accumulated during various maintenance functions. Supernatant from the solids settling basins is treated with citric acid or soda ash, if needed, to adjust pH to proper limits prior to discharging to the closed-loop cooling canals. Ash is sent to a filter press and disposed of in accordance with state and federal regulations.

Economizer Hopper Wash (Fossil)

The economizer section of the boiler collects combustion by-products during plant operations, resulting in slag formation. Periodically, the interior surface of the economizer hopper is washed. This washing typically is performed daily or as needed. The wash water is discharged to one of two on-site settling basins. The supernatant from these basins is discharged to the closed-loop cooling canals. Prior to discharge, the waste stream undergoes pH adjustments.

Air Preheater Wash (Fossil)

Air preheaters operate in an atmosphere near the dewpoint of boiler exit gas. Since there is some deposition of sulfuric compounds on the preheater surface, wash water is typically acidic. Air preheaters are washed with water on an as needed basis and usually followed by rinsing with water. The air preheater waste effluent is routed to, and treated in, one of two solids settling basins.

Stack Wash (Fossil)

Each stack is washed approximately every five years to remove combustion products, which adhere to the interior stack surfaces. The stack wash is discharged to one of two solids settling basins. Supernatant from these basins is discharged to the closed-loop cooling canals.

Dust Collector and Dust Collection Hopper Wash (Fossil)

Particulate materials collected by the dust collectors falls into dust collector hoppers and are injected into the boiler for re-burning, or is sluiced to one of the solids settling basins. At present, the collectors and hoppers are routinely washed. However, if clogging occurs, the appropriate section may be taken apart and the loose ash removed. The ash is caught within a curbed area and is sluiced to one of two solids settling basins. Supernatant from these basins is discharged to closed-loop cooling canals.

Boiler Fireside Wash (Fossil)

Boiler fireside washing is typically performed once per year per unit or as needed. The high-pressure wash water is utilized to clean combustion products deposited on boiler tubes during operation. This system is designed to pump the boiler fireside waste water to one of two solids settling basins. Supernatant from these basins is discharged to the closed-loop cooling canals.

4. Boiler & HRSG Blowdown (Fossil & Unit 5 CC)

High purity water generated by the plants' water treatment system for Units 1,2 and 5 is used for makeup to the boiler/HRSG water/steam cycle. During the continual vaporization of water occurring in the boiler, dissolved solids build up in the boiler water and must be controlled by the boiler blowdown.

Two forms of sodium phosphate are added to the boiler water for control of calcium and magnesium scaling. Ammonium hydroxide is added for feedwater pH control. Hydrazine is added for dissolved oxygen removal. Undesirable boiler water contaminants such as Cl^- and silica can be introduced from condenser tube leaks resulting in contamination of the boiler water. When dissolved solids reach unacceptable levels they must be reduced by boiler blowdown. Boiler blowdown is taken from the bottom of the steam drum, which contains such contaminants as silica, sodium phosphate dissolved solids, calcium or magnesium phosphate sludge, and metals such as copper and iron. Some of the boiler blowdown flashes into steam and discharges into the atmosphere. The remaining liquid portion of the boiler blowdown is routed to the closed-loop cooling canals.

5. On-Line Chemical Analyzer Waste (All Units)

A very low volume of sample water is diverted from various locations within the steam cycle to online chemical analyzers to test water chemistry. A very small quantity of chemical effluent from these analyzers is discharged to the closed-loop cooling canals along with the blowdown.

6. Steam Generator Blowdown (Nuclear)

High purity water generated by the plants' make-up water treatment system is routed via storage tanks to the condensers for makeup to the water/steam cycle. Advanced

amines such as ammonium hydroxide, ethanolamine (ETA) and dimethylamine (DMA) or equivalent are added for pH and corrosion control and hydrazine or equivalent for dissolved oxygen removal. Strict operating specifications require that suspended and dissolved solids be removed from steam generator water by continuous steam generator blowdown. This blowdown is routed to the closed-loop cooling canals.

During overhauls and/or refueling outages the steam generators, feedwater systems, and/or condensers may be placed in a static mode where the internal metal surfaces of these components must be protected from corrosion. The typical method used is to fill the system with a hydrazine/carbohydrazine/merzine ammonia/demineralized water solution. This solution has a pH range of 9.0 s.u. to 10.5 s.u. and usually contains less than 300 ppm hydrazine. Approximately 1,000,000 gallons of this solution may be discharged to the closed-loop cooling canals following each overhaul or refueling outage. Testing in the discharge canal for hydrazine concentrations, following the discharges, has shown hydrazine values to be less than 10 ppb.

7. Chemical Volume Control System (Nuclear)

This waste stream originates from various maintenance and operational activities, which take place within the Reactor Auxiliary Building. Discharges from the Chemical Volume Control System are intermittent, and are strictly regulated by the Atomic Energy Act and the Nuclear Regulatory Commission.

8. Main Condenser Cooling Water System (Fossil and Nuclear)

Condenser cooling water for Units 1 through 4 is withdrawn from the closed-loop cooling canal system through two intake canals on the east side of the units. The waste heat from the steam condensation is transferred to the cooling water in the condensers which discharge back to the closed-loop cooling canal system on the west side of the units. With all 12 circulating water pumps operating the cooling water flow is rated at 1,800,000 gpm.

9. Auxiliary Equipment Cooling Water System (Fossil and Nuclear)

An additional 120,000 gpm of water from the closed-loop cooling canal system is used to cool, via heat exchangers, the closed component cooling water system for Units 1 through 4. Actual equipment cooling is accomplished by aqueous molybdate-nitrite-tolytriazole (TTA) solution that is re-circulated through the various pieces of equipment to be cooled and then through the aforementioned heat exchangers. Sodium hydroxide and nitric acid may be added for pH control.

10. Condensate Polishers (Nuclear)

The condensate polishers are utilized during the operation of Units 3 and 4. Backwash water from this system is discharged to a holding tank, then to a filtration/resin collection system prior to being discharged to the closed-loop cooling canals. Flow from this system is intermittent. This effluent may contain small amounts of powdered resin.

11. Intake Screen Wash (Fossil and Nuclear)

Periodically, it is necessary to clean the traveling screens associated with the intake cooling water pumps to prevent debris from reaching the condensers. Cooling canal water is pumped through spray nozzles to clean the screens and then the wash stream is returned to the canal system via a debris screen at the intake area or to the discharge canal.

12. Sanitary Sewer (Fossil and Nuclear)

Sanitary waste from showers, water closets, toilets, etc. is routed to county approved on-site septic systems for the fossil and land management facilities.

The nuclear units' domestic wastewater is routed to an on-site county and state approved, contact stabilization sewage treatment plant. Effluent from this treatment plant is discharged to an on-site, approved, underground injection well. Wastewater residuals generated by this plant are transported to an approved offsite facility.

When Units 6 & 7 sanitary waste treatment system and deep injection wells are operational, sanitary waste from Units 3 & 4 will be routed to the new system and the Units 3 & 4 sanitary system will no longer be used.

13. Stormwater (Fossil, Nuclear and Unit 5 CC)

Non-Equipment Area Stormwater runoff for Units 1 through 4 collects in drainage channels and floor drains, then typically through a series of stormwater catch basins before being released to the closed-loop cooling canals. Non-Equipment Area Stormwater for Unit 5 is routed to a stormwater detention basin and released to local drainage.

Equipment and Containment Area Stormwater floor drains typically receive small amounts of particulate material, lubricating and fuel oils. The Equipment and Containment Area Stormwater drains, which can receive oil, are routed to oil/water separators then to the Solids Settling Basins prior to being discharged to the closed-loop cooling canal system.

14. Interceptor Ditch (All Units)

The Interceptor Ditch restricts inland movement of closed cooling canal water by maintaining a seaward groundwater gradient during times when a natural seaward gradient does not exist. Normally, during the wet season (June - November) and the early part of the dry season, a natural seaward gradient does exist. During the rest of the year, however, it may be necessary to artificially generate a seaward gradient by pumping water out of the Interceptor Ditch to the cooling canal.

15. Wastewater Treatment System (Unit 5 Combined Cycle)

The Unit 5 wastewater treatment system effluent includes cooling water and process water treatment system effluent, HRSG blowdown, quench water from the cooling towers, equipment area stormwater and plant drains. Equipment area stormwater is routed to an oil/water separator and then to the wastewater solids settling /neutralization basin (sump). The other waste streams are collected in the sump before discharge to the closed-loop cooling canals/industrial wastewater facility.

16. Cooling Tower Blowdown (Unit 5 Combined Cycle)

Blowdown from the Unit 5 cooling towers is released to the closed-loop cooling canals/industrial wastewater facility. Unit 5 obtains cooling water from the Upper Floridan. Under rare conditions, if power is lost to the cooling towers, cooling water will be diverted from the cooling towers and used to cool emergency diesel generators using a once-through non-contact cooling system. The cooling water will then be discharged to the closed-loop cooling canals/industrial wastewater facility.

17. Stormwater (Units 6 & 7)

Stormwater is the only operational release from Turkey Point Units 6 & 7 to the closed-loop cooling canal system. All other wastewater from these units is discharged through the deep injection wells.

Non-equipment area stormwater runoff from the plant will collect in drainage channels and floor drains, and then will typically flow through stormwater catch basins before being released directly to the closed-loop cooling canals/industrial wastewater facility.

Equipment and containment area stormwater floor drains typically receive small amounts of particulate material, lubricating and fuel oils. The Equipment and Containment Area Stormwater drains, which can receive soil/oil, are routed to oil/water separators then to solids settling basins prior to being released to the closed-loop cooling canals/industrial wastewater facility.

Non-equipment area storm water runoff from the Reclaimed Water Treatment Facility and the Radial Collector Well area will be released to off-site drainage. Equipment and containment area stormwater from the Reclaimed Water Treatment Facility will be routed back into the process flow.

18. Wastewater (Units 6 & 7)

All wastewater from Units 6 & 7, except for stormwater, will be routed to the deep injection wells that will be permitted through, and will meet the requirements of, the Underground Injection Control Program.

Form 2CG Attachment III.B-2
IDENTIFICATION OF PLANT MAINTENANCE
ACTIVITIES FOR ALL UNITS

<u>Maintenance Process</u>	<u>Associated Units</u>
1. Boiler Waterside Chemical Cleaning	Fossil
2. Boiler Cold/Wet Lay-up	All Units
3. Equipment Area Routine Cleaning	All Units
4. Feedwater Heater Wash	Fossil
5. Equipment Closed Cooling Water Systems Maintenance	Fossil and Nuclear

1. Boiler Waterside Chemical Cleaning (BCCM) - Fossil

Boiler water tube internal surfaces are typically cleaned every 5-10 years. These cleanings are performed to remove inorganic scale and metal oxides that are deposited on the ID of the tube surfaces. The cleaning solvents of choice (in order of preference) are Tetraammonium Ethylenediaminetetraacetate (or Tetraammonium EDTA), Diammonium EDTA, Diammonium Citrate (byproduct is citric acid), or a similar type material. After completion of the boiler cleaning, the spent solution (known as boiler chemical cleaning material or BCCM) and subsequent rinses are collected into a series of temporary 20,000-gallon storage tanks (Frac Tanks). These tanks are connected to each other through a common manifold. A hazardous waste determination is then performed on a representative number of tanks as determined by the Waste Analysis Plan. BCCM that is determined to be non-hazardous is evaporated on site in an operational boiler in accordance with the applicable air permit stipulations. In some cases, non-hazardous waste may be disposed off-site in approved wastewater disposal facility. BCCM that is determined to be hazardous (very infrequent) will typically be disposed of off-site at a permitted waste facility.

2. Boiler Cold/Wet Lay-up

During plant overhauls the boilers, feedwater systems and/or condensers may be placed in a static mode where the internal metal surfaces of these components need to be protected against surface corrosion. The typical method to protect this equipment is through the use of ammoniated demineralized water solution. Ammonium Hydroxide is added to ultra pure water to raise the pH to above 9.0 s.u. In some cases where dissolved oxygen may risk damaging the metal components, a small amount of hydrazine may also be used. This water remains in place until system start-up and operation. In some cases, the ammoniated water will be drained and sent to the closed-loop cooling canal system.

3. Equipment Area Routine Cleaning (All Units)

Equipment area floor drains typically receive small amounts of particulate material, lubricating and fuel oils, as well as wash water and stormwater. Equipment area drains, which can receive oil, are routed to oil/water separators prior to being discharged to the closed-loop cooling canals.

4. Feedwater Heater Wash (Fossil)

After a unit overhaul, typically each of the five (5) low pressure feedwater heaters will be flushed with condensate water. The wastewater will go through the storm drains and be discharged to the closed-loop cooling canals. The condensate wastewater will have low levels of silica, chloride, phosphate, calcium, and magnesium.

5. Equipment Closed Cooling Water Systems Maintenance (Fossil and Nuclear)

Molybdates, nitrites, and tolyltriazoles for corrosion control are used in Plant equipment closed cooling water systems, such as the Component Cooling Water System, the Turbine Plant Cooling Water System, air conditioning coolant systems, the cooling jackets of diesel driven pumps and compressors coolant systems. During routine maintenance of this equipment water is discharged to the close-loop cooling canals.

The nuclear plant's closed cooling water systems are infrequently treated with the biocide, gluteraldehyde or isothiazolin to prevent biological corrosion. However, the biocides are not discharged to the closed-loop cooling canal system.

APPENDIX 10.2.2.2

**FDEP INDUSTRIAL WASTEWATER FACILITY PERMIT
MINOR PERMIT REVISION
#FL0001562-004-IWIN (Revision C)
April 15, 2009**



Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

April 15, 2009

BY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. William Jefferson
Vice President, Turkey Point Plant
Florida Power & Light Company
9760 S.W. 344 Street
Florida City, Florida 33035

RE: Florida Power & Light Company
Turkey Point Power Plant, Dade County
DEP File FL0001562-009-IWB/MR
Minor Permit Revision For Use of Equivalent Chemical Products

Dear Mr. Jefferson:

On June 20, 2008, the Department received a minor permit revision application for Florida Power & Light Company (FPL) Turkey Point Plant. The minor revision authorizes the use of the requested specialty chemicals at the doses and frequencies specified in the application and supplemental information. The Department has determined that this activity qualifies as a minor modification of the operations at the Turkey Point Power Plant pursuant to Rule 62-620.200(24), Florida Administrative Code (F.A.C.), and can be authorized by a minor permit revision pursuant to Rule 62-620.325(2), F.A.C. This letter and attachment constitute a minor revision to the referenced wastewater permit.

This letter and attachment shall be attached to Permit FL0001562. All other conditions of this permit shall remain in effect. The permit is modified as stated in the attached revised permit pages unless FPL decides to file a timely, sufficient petition for an administrative hearing under Section 120.57, Florida Statutes. The procedures for petitioning for a hearing are set forth in the attachment titled "Notice of Rights." If you have any questions regarding this permit revision, please contact Marc Harris, P.E., in the Industrial Wastewater Section at (850) 245-8589.

Sincerely,

Janet G. Llewellyn
Director
Division of Water Resource Management

JGL/wrf/mh
Attachments

cc: Tim Powell, P.E., DEP West Palm Beach
Nancy Ross, DEP Tallahassee
Andy Flajole, Florida Power and Light

"More Protection, Less Process"
www.dep.state.fl.us

NOTICE OF RIGHTS

A person whose substantial interests are affected by this permit revision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. A petitioner, other than the applicant, shall mail a copy of the petition to the applicant at the address indicated in the attached letter at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; 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;
- (c) A statement of how each petitioner's substantial interests are affected by the Department action;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;
- (f) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

**STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT**

PERMITTEE:

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER:

FL0001562 (Major)

PA FILE NUMBER:

FL0001562-004-IW1N (Revision C)

ISSUANCE DATE:

May 6, 2005

REVISION DATE:

April 15, 2009

EXPIRATION DATE:

May 5, 2010

RESPONSIBLE AUTHORITY:

Mr. Terry O. Jones
Vice President

FACILITY:

FPL Turkey Point Power Plant
9760 S.W. 344 Street
Florida City, FL 33035
Dade County

Latitude: See Note Below Longitude: See Note Below

Note: Latitude and longitude are not shown at Permittee's request, for purposes of Homeland Security pursuant to federal regulations found at 18 CFR 388.113(c)(i) and (ii) and by Presidential Directive dated December 17, 2003.

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

The facility consists of four steam-electric generating units: Two fossil fuel oil-fired units (Units 1&2) and two nuclear units (Units 3&4). Units 1&2 each have a continuous generating capability of 404 megawatts (MW), and Units 3&4 each have a continuous generating capability of 693 MW.

WASTEWATER TREATMENT:

Wastewater from the Turkey Point facility consists of a non-contact once-through condenser cooling water (OTCW), auxiliary equipment cooling water (AECW), low-volume waste (LVW), and stormwater. LVW consists of chemical treatment system wastewater, boiler blowdown, reverse osmosis concentrate, condensate polishing system backwash water, and other process wastestreams. Stormwater includes stormwater associated with industrial activity and stormwater not associated with industrial activity.

OTCW and AECW discharge to the facility's approximately 6,700 acre onsite closed loop cooling canal system. LVW, equipment area stormwater, and non-equipment area stormwater/drainage discharge either directly to the onsite closed loop cooling canal system or indirectly to the same system via solids settling basins and/or neutralization basin. The cooling canal system is not lined, and therefore, discharges to Class G-III groundwater. The cooling canal system does not discharge to surface waters of the state.

PERMITTEE:
Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER: FL0001562 Major Revision C
Issuance date: May 6, 2005
Expiration date: May 5, 2010

Additions to the permit are identified by *italics* and underline.

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 th 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's Southeast District Office at the address specified in Permit Condition I.E.2.

- 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 North Congress, Suite 200
West Palm Beach, FL 33401-3303
Phone Number - (561) 681-6702
- All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.
- The permittee shall provide safe access points for obtaining representative samples which are required by this permit.
- 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.
- 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 that is bypassed. Monitoring results shall be reported to the Department.
- There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.
- This permit authorizes the use of the following biocides, or their generic equivalents, in various closed cooling water systems without limitations or monitoring; BULAB 6001/6002, BETZ POWERLINE 3610, and NALCO products 3DT-187, 19H, 1336, 1389, 1393, 7338, 7330, 7348, 7357, 7468, 8322, 73286, BT-3000, Elimin-OX, PT-7000, Y302105, and Y302104. The Permittee shall notify the Department if there is a discharge of any of these products into the closed cycle cooling canal system in other than de-minimus amounts which contain concentrations of active ingredients above the MDLs for those ingredients.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

STATEMENT OF BASIS FOR MINOR PERMIT REVISION FOR
USE OF EQUIVALENT CHEMICAL PRODUCTS

Permit Number: FL0001562
DEP File Number: FL0001562-009-IWB/MR
Designation: Major
Permit Writer: Bala Nori

Application Date: June 20, 2008 (Revision C)

A. Name and Address of Applicant

Florida Power & Light Company
Post Office Box 14000
Juno Beach, Florida 33408

For:

Turkey Point Power Plant
9760 S.W. 344 Street
Florida City, Florida 330355
Dade County

B. Description of Modification

The Department received a minor revision application requesting the use of NALCO Company water treatment products that are equivalent in ingredients to the General Electric (GE) water treatment products already approved for use at the Florida Power & Light (FPL) Company Turkey Point Power Plant.

The GE chemicals approved for use in the closed cooling water canals include AZ8101, MD1406, MD4106, and Corn Shield. FPL has requested to replace these chemicals with NALCO products 7357, 8322, 1336, and 7330. The estimated NALCO chemical dosages are 200 mg/L, 0.25oz/gallon, 50 mg/L, and 50 mg/L, respectively.

The GE chemicals approved for use in the steam generator include Optisperse HP 3102 and HP 9431. FPL has requested to replace these chemicals with to be replaced with NALCO products BT-3000 and Y302105, respectively. The estimated NALCO chemical dosages are 0.2-2.6 mg/L and 0.2-2.6 mg/L, respectively.

The GE chemicals approved for use in the boiler feedwater control include OS 5005 and OS 5007. FPL has requested to replace these chemicals with NALCO products Y30214, PT-7000, 19H and ELIMIN-OX. The estimated NALCO chemical dosages are to maintain pH of 9.0, to maintain pH of 9.0, to maintain residual of 10 ug/L and 10ug/L, respectively.

The GE chemicals approved for use in the cooling tower include AEC 3145, AZ8104, AEC 3145, AZ 8104, OP 8413, CT 1300, and Foamtrol AF2290. FPL has requested to replace these chemicals with NALCO products 1389, 1393, 3DT-187, 73286, 7330, and 7468. The estimated NALCO chemical dosages are 2.7 mg/L, 1 mg/L, 19 mg/L, 4.2 mg/L, and as needed, respectively.

Because FPL Turkey Point is a no discharge facility, the Department's Toxicity Coordinator has indicated that there would no adverse impact to environment by using the aforementioned chemicals at the facility.

This constitutes Revision C (Rev. C) to the permit. All changes to the permit are noted in Rev. C by underline or strike-through where changes have been made for this revision.

APPENDIX 10.2.2.3

**FDEP INDUSTRIAL WASTEWATER FACILITY PERMIT
MINOR PERMIT REVISIONS**

#FL0001562- (Revision B)

FILE #FL0001562-008-IWB/MR – JANUARY 4, 2009

FILE #FL0001562-007-IWB/MR – AUGUST 21, 2008



Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

January 14, 2009

BY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. William Jefferson
Vice President - Turkey Point Plant
Florida Power & Light Company
9760 S.W. 344 Street
Florida City, Florida 33035

RE: Florida Power & Light Company
Turkey Point Plant, Dade County
DEP File FL0001562-008-IWB/MR
Approval for Minor Permit Revision B for Uprate of Units 3 and 4

Dear Mr. Jefferson:

On April 22, the Department received a minor permit revision application for Florida Power & Light Company (FP&L) Turkey Point Plant. The proposed minor revision is to authorize the increase of net power output for Units 3 and 4 by 200 megawatts. The Department has determined that this activity qualifies as minor modifications of the operations at the Turkey Point Plant pursuant to Rule 62-620.200(24), Florida Administrative Code (F.A.C.), and can be authorized by minor permit revisions pursuant to Rule 62-620.325(2), F.A.C. This letter and attachment constitute a minor revision to the referenced wastewater permit.

The permit is revised as stated in the attached permit pages unless FP&L decides to file a timely, sufficient petition for an administrative hearing under Section 120.57, Florida Statutes. The procedures for petitioning for a hearing are set forth in the attachment titled "Notice of Rights."

If you have any questions regarding this permit revision, please contact Marc Harris, P.E., in the Industrial Wastewater Section at (850) 245-8589.

Sincerely,

Janet G. Llewellyn
Director
Division of Water Resource Management

cc: Tim Powell, P.E., FDEP West Palm Beach
Mike Halpin, P.E., FDEP Tallahassee

NOTICE OF RIGHTS

A person whose substantial interests are affected by this permit revision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. A petitioner, other than the applicant, shall mail a copy of the petition to the applicant at the address indicated in the attached letter at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; 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;
- (c) A statement of how each petitioner's substantial interests are affected by the Department action;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;
- (f) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

**STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT**

PERMITTEE:

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER:

FL0001562 (Major)

PA FILE NUMBER:

FL0001562-004-TWIN (REV B)

ISSUANCE DATE:

May 6, 2005

REVISION DATE:

December 4, 2008

EXPIRATION DATE:

May 5, 2010

RESPONSIBLE AUTHORITY:

Mr. Terry O. Jones
Vice President

FACILITY:

FPL Turkey Point Power Plant
9760 S.W. 344 Street
Florida City, FL 33035
Dade County

Latitude: See Note Below Longitude: See Note Below

Note: Latitude and longitude are not shown at Permittee's request, for purposes of Homeland Security pursuant to federal regulations found at 18 CFR 388.113(c)(i) and (ii) and by Presidential Directive dated December 17, 2003

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). 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 facility consists of four steam-electric generating units: Two fossil fuel oil-fired units (Units 1&2) and two nuclear units (Units 3&4). Units 1&2 each have a continuous generating capability of 404 megawatts (MW), and Units 3&4 each have a continuous generating capability of ~~693~~ 893 MW.

WASTEWATER TREATMENT:

Wastewater from the Turkey Point facility consists of a non-contact once-through condenser cooling water (OTCW), auxiliary equipment cooling water (AECW), low-volume waste (LVW), and stormwater. LVW consists of chemical treatment system wastewater, boiler blowdown, reverse osmosis concentrate, condensate polishing system backwash water, and other process wastestreams. Stormwater includes stormwater associated with industrial activity and stormwater not associated with industrial activity.

OTCW and AECW discharge to the facility's approximately 6,700 acre onsite closed loop cooling canal system. LVW, equipment area stormwater, and non-equipment area stormwater/drainage discharge either directly to the onsite closed loop cooling canal system or indirectly to the same system via solids settling basins and/or neutralization basin. The cooling canal system is not lined, and therefore, discharges to Class G-III groundwater. The cooling canal system does not discharge to surface waters of the state.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

STATEMENT OF BASIS FOR MINOR PERMIT REVISION FOR
REPOWERING OF BARTOW POWER PLANT

Permit Number: FL0001562

Application Date: April 22, 2008

DEP File Nos.: FL0001562-008-TWB/MR

Designation: Major

Permit Writer: Bala Nori

A. Name and Address of Applicant

Florida Power & Light Company
Post Office Box 14000
Juno Beach, Florida 33408

For:

FPL Turkey Point Power Plant
9760 S.W. 344 Street
Florida City, Florida 33035

B. Description of Modification

The Department received a minor permit revision application requesting the approval to increase the net power output for Units 3 and 4 by a total of 200 megawatts (MW) at the Turkey Point Plant

The uprate project consists of upgrades to each unit. These upgrades will include refurbishment and improvement activities to the steam turbine, electrical generator, the onsite electrical systems, and the plant cooling systems. The extra electrical output will result from improved performance of the steam turbines and from using more enriched uranium fuel in the reactors. All improvement activities will occur within the existing buildings and structures associated with Units 3 and 4. No external construction activities are required for this project.

Construction activities for this project will occur primarily during two scheduled outages per unit, with each outage lasting approximately 50 days. Construction activities for the Unit 3 uprate will begin during the planned 2010 Spring outage and conclude during the 2011 Fall outage. Construction activities for the Unit 4 uprate will begin during the planned 2011 Fall outage and conclude during the 2012 Spring outage. Certain improvements also will be made while the units are operating.

Units 3 and 4 use once-through cooling water from the closed loop cooling system to remove heat from the main condensers.

After the up rate project is completed, the cooling water flow rate will remain unchanged, although the temperature rise across the condensers is anticipated to increase by 2.5°F. The cooling canal system is not lined, and therefore, discharges to Class III groundwater. The cooling canal system does not discharge to surface waters of the state.

This constitutes Revision B (Rev. B) to the permit. All changes to the permit are noted in Rev. B by underline or strike-through where changes have been made for this revision.



Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

August 21, 2008

Mr. Bryon Billman
Power Generation Division
Florida Power & Light Company
700 Universe Blvd
Juno Beach, Florida 33408

**By Certified Mail
Return Receipt Requested**

RE: Florida Power & Light Company
Turkey Point Plant, Miami-Dade County
DEP File No. FL0001562-007-IWB/MR
Minor Permit Revision for Internal Discharge of Auxiliary Cooling Water from Unit 5

Dear Mr. Billman:

On January 25, 2008, the Department received a minor permit revision application for Florida Power & Light Company (FPL) Turkey Point Plant. The proposed minor revision is to authorize internal discharge of auxiliary cooling water from combustion turbine electric generators at the recently constructed Turkey Point Unit 5 (a fossil fuel generating unit) to the facility's on-site closed-loop cooling canal system. The discharge will only occur during maintenance outages for the Unit 5 steam electric generating system and cooling tower.

The Department has determined that this activity qualifies as a minor modification of the operations at the Turkey Point Plant pursuant to Rule 62-620.200(24), Florida Administrative Code (F.A.C.), and can be authorized by a minor permit revision pursuant to Rule 62-620.325(2), F.A.C. This letter and attachment constitute a minor revision to the referenced wastewater permit.

The permit is revised as stated in the attached permit page unless FPL decides to file a timely, sufficient petition for an administrative hearing under Section 120.57, Florida Statutes. The procedures for petitioning for a hearing are set forth in the attachment titled "Notice of Rights."

If you have any questions regarding this permit revision, please contact Marc Harris, P.E., in the Industrial Wastewater Section at (850) 245-8589.

Sincerely,

Janet Llewellyn
Director
Division of Water Resource Management

Attachment

cc: Tim Powell, P.E., FDEP West Palm Beach
Todd Brown, FDEP West Palm Beach

NOTICE OF RIGHTS

A person whose substantial interests are affected by this permit revision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. A petitioner, other than the applicant, shall mail a copy of the petition to the applicant at the address indicated in the attached letter at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; 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;
- (c) A statement of how each petitioner's substantial interests are affected by the Department action;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;
- (f) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

**STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT**

PERMITTEE:

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER:

FL0001562 (Major) Rev. B

PA FILE NUMBER:

FL0001562-004-IWIN

ISSUANCE DATE:

May 6, 2005

REVISION DATE:

August 21, 2008

EXPIRATION DATE:

May 5, 2010

RESPONSIBLE AUTHORITY:

Mr. Terry O. Jones
Vice President

FACILITY:

FPL Turkey Point Power Plant
9760 S.W. 344 Street
Florida City, FL 33035
Dade County

Latitude: See Note Below Longitude: See Note Below

Note: Latitude and longitude are not shown at Permittee's request, for purposes of Homeland Security pursuant to federal regulations found at 18 CFR 388.113(c)(i) and (ii) and by Presidential Directive dated December 17, 2003.

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). 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 facility consists of five electrical generating units: Two fossil fuel oil/natural gas-fired units (Units 1&2), two nuclear units (Units 3&4) and one combined cycle unit (Unit 5). Units 1&2 each have a generating capacity of 404 megawatts (MW), Units 3&4 each have a generating capacity of 693 MW and Unit 5 has a generating capacity of 1150 megawatts (MW).

WASTEWATER TREATMENT:

Wastewater from the Turkey Point facility consists of non-contact once-through condenser cooling water (OTCW), auxiliary equipment cooling water (AECW), cooling tower blowdown, non-contact once-through cooling water from Unit 5 backup cooling water system, low-volume waste (LVW), and stormwater. LVW consists of chemical treatment system wastewater, boiler blowdown, heat recovery steam generator blowdown, reverse osmosis concentrate, condensate polishing system backwash water, and other process wastestreams. Stormwater includes stormwater associated with industrial activity and stormwater not associated with industrial activity.

OTCW, AECW and cooling tower blowdown discharge to the facility's approximately 6,700 acre onsite closed loop cooling canal system. LVW, equipment area stormwater, and non-equipment area stormwater/drainage discharge either directly to the onsite closed loop cooling canal system or indirectly to the same system via solids settling basins and/or neutralization basin. The cooling canal system is not lined, and therefore, discharges to Class G-III groundwater. The cooling canal system does not discharge to surface waters of the state.

PERMITTEE:

PERMIT NUMBER: FL0001562 *(Rev. B)*

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

Issuance date: May 6, 2005
Expiration date: May 5, 2010

Additions to the permit are identified by italics and underline. Deletions are identified by strikethrough.

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. This permit does not authorize discharge to surface waters of the state.
2. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge non process wastewater consisting of non-contact once-through condenser cooling water (OTCW), non-contact auxiliary equipment cooling water (AECW), cooling tower blowdown, , *non-contact once-through cooling water from Unit 5 backup cooling water system* and other wastestreams (as indicated in the permit renewal application and permit revision application) from Internal Outfall I-001 to the onsite feeder canal within the facility's onsite closed loop cooling canal system. Such discharge shall be limited and monitored by the pennittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Maximum Daily Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Temperature (F), Water (DEG.F)	--	Report	--	Monthly	Instantaneous	OUI-1
Solids, Total Suspended (MG/L)	--	Report	--	Quarterly	Grab	OUI-1
pH (SU)	--	Report	Report	Quarterly	Grab	OUI-1
Salinity (PPT)	--	Report	--	Quarterly	Grab	OUI-1
Specific Conductance (UMHO/CM)	--	Report	--	Quarterly	Grab	OUI-1
Copper, Total Recoverable (UG/L)	--	Report	--	Semiannually	Grab	OUI-1
Iron, Total Recoverable (MGL)	--	Report	--	Semiannually	Grab	OUI-1
Zinc, Total Recoverable (UG/L)	--	Report	--	Semiannually	Grab	OUI-1

3. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.2. and as described below:

Sample Point	Description of Monitoring Location
OUI-1	Cooling water discharge prior to entering the feeder canal within the closed loop cooling canal system

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

STATEMENT OF BASIS FOR MINOR REVISION FOR BACKUP COOLING WATER SYSTEM

Permit Number: FL0001562
DEP File No.: FL0001562-007-IWB/MR
Designation: Major
Permit Writer: Bala Nori

Application Date: January 25, 2008

1. SYNOPSIS OF APPLICATION

A. Name and Address of Applicant

Florida Power & Light Company
Post Office Box 14000
Juno Beach, Florida 33408

For:

Turkey Point Power Plant
9760 S.W. 344th Street
Florida City, Florida 34957

B. Description of Proposed Activity:

The Department received a minor permit revision application requesting authorization to operate a backup cooling water system for the recently constructed Turkey Point Unit 5 (a fossil fuel generating unit).

Turkey Point Unit 5 consists of four gas turbines, four heat recovery steam generators, a single steam turbine-electrical generator, and a mechanical draft cooling tower. Under normal operation, the cooling tower removes the surplus heat from the turbine steam and auxiliary equipment. Water is blowdown from the cooling tower to the closed-loop cooling canals at an average flow rate of 1,987 gallons per minute (gpm) with a maximum flow rate of 4,668 gpm. This discharge is permitted under the existing wastewater discharge permit for this facility. Ground water is withdrawn from the upper production zone of the Floridan aquifer as make-up water to replace the lost water volume from the cooling tower.

Under rare situations where the primary electrical power supply is lost to the cooling tower, FPL may be required to shutdown Unit 5 using emergency diesel generators (EDGs). The EDGs are not capable of powering all of the existing cooling tower water pumps. FPL is proposing to install an backup cooling water system to safely shutdown Unit 5 when the primary power supply is lost to the cooling tower pumps. The backup cooling water system consists of heat exchangers and will be used to cool the auxiliary equipment. The groundwater withdrawn from the Floridan aquifer will be diverted from the cooling tower and used as once-through cooling water in the and then discharged into the existing cooling canals at an average flow rate of 2,250 gpm with a maximum flow rate of 4,500 gpm. Thus, the cooling tower and backup cooling water system will not be operation simultaneously.

The cooling canals are a closed-loop system used by all five generating units at the Turkey Point plant. The NPDES permit does not authorize discharge from the cooling canals to surface water. This minor revision does not authorize any discharge except internal discharge to the cooling canal system from the

backup cooling water system during abnormal shutdown of Unit 5 and testing events. The revision does not authorize use of any chemical additives or biocides in the backup cooling water system. This constitutes Revision B (Rev. B) to the permit. All changes to the permit are noted in Rev. B by underline or strike-through where changes have been made for this revision.



Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, FL 33408
561-694-4022

February 22, 2008

Bala Nori
Permitting Engineer- Industrial Wastewater Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399

RE: Turkey Point Minor IWW Permit Revision RFI

Bala:

Florida Power and Light (FPL) is glad to respond to your request for additional information on potential usage of the proposed alternate cooling system at Turkey Point Unit 5. While it is impossible to state an exact number of uses per year for the alternate cooling system, there are two types of situations which would require its use.

First, the alternate cooling water system would be used in conjunction with the emergency diesel generator in response to "off normal" unit shut down events. Off normal events are events such as hurricanes and power grid failures that result in no auxiliary power being available to Unit 5. Operation of the alternate cooling water system using the emergency diesel generator would result in a "safe" shut down of the unit (i.e. would avoid major equipment damage while the unit is cooling).

Second, the alternate cooling water system would be used during scheduled and unscheduled Unit 5 outages/shut downs. By using the alternate cooling system, the facility uses less power than would be used by the primary cooling system due to smaller pump sizes (300 Horsepower (HP) well pumps vs. 4000 HP circulating water pumps). Using the alternate cooling system may also allow maintenance to begin several days earlier on the primary circulating water system, which could result in shorter outages. Since Turkey Point Unit 5 is one of FPL's most efficient, lowest emitting (air emissions) units, we want these units to be running as much as possible.

Finally, the cooling water for both the primary and alternate systems is coming from the same source (Floridian Aquifer Wells), at approximately the same rate, and discharging to the same location (cooling canals). The only real difference is that no chemicals are being added to the alternate cooling water while maintenance chemicals are required for the cooling towers.

Sincerely,

Andy Flajole

APPENDIX 10.2.2.4
FDEP INDUSTRIAL WASTEWATER FACILITY PERMIT
#FL0001562-004-IW1N MINOR REVISION (Revision A)
JANUARY 12, 2007



Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary-Designee

January 12, 2007

BY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Jill Watson
Power Generation Division
Florida Power & Light Company
Post Office Box 14000
Juno Beach, Florida 33408-0420

RE: Florida Power & Light Company
Turkey Point Power Plant, Dade County
NPDES Permit No. FL0001562
Approval of Minor Revision for Inclusion of New Electric Generating Unit (Unit 5)

Dear Ms. Watson:

On May 30, 2006, the Department received a minor permit revision application for the Florida Power & Light Company (FPL) Turkey Point power plant. The proposed permit modification is to authorize the discharge of wastewater streams from the new combined cycle electrical generation unit (Unit 5) at the facility into the existing closed-loop cooling canal system. After review of the application, the Department has determined that the proposed modification to permit number FL0001562 does not substantially change the characteristic of the effluent or increase the potential for adverse impact on the aquatic system. Because the proposed modification is not expected to result in any water quality degradation, the permit is hereby modified pursuant to Rules 62-620.200(24), 62-620.200(25), and 62-620.325(2), Florida Administrative Code. Note, this letter does not alter the May 5, 2010 expiration date, other Specific or General Conditions, or monitoring requirements of the permit. This letter and accompanying revised permit pages must be attached to the original permit.

The permit is modified as stated in the attached revised permit pages unless FPL decides to file a timely, sufficient petition for an administrative hearing under Section 120.57, Florida Statutes. The procedures for petitioning for a hearing are set forth in the attachment titled "Notice of Rights." If you have any questions regarding this permit revision, please contact Marc Harris, P.E., in the Industrial Wastewater Section at (850) 245-8589.

Sincerely,

Janet G. Llewellyn
Acting Director
Division of Water Resource Management

JGL/wfr/mh

Attachments

cc: Tim Powell, P.E. — FDEP West Palm Beach

"More Protection, Less Process"
www.dep.state.fl.us

NOTICE OF RIGHTS

A person whose substantial interests are affected by this permit revision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. A petitioner, other than the applicant, shall mail a copy of the petition to the applicant at the address indicated in the attached letter at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; 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;
- (c) A statement of how each petitioner's substantial interests are affected by the Department action;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;
- (f) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

**STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT**

PERMITTEE:

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER:

FL0001562 (Major) Rev. A

PA FILE NUMBER:

FL0001562-004-IW1N

ISSUANCE DATE:

May 6, 2005

EXPIRATION DATE:

May 5, 2010

RESPONSIBLE AUTHORITY:

Mr. Terry O. Jones
Vice President

FACILITY:

FPL Turkey Point Power Plant
9760 S.W. 344 Street
Florida City, FL 33035
Dade County

Latitude: See Note Below Longitude: See Note Below

Note: Latitude and longitude are not shown at Permittee's request, for purposes of Homeland Security pursuant to federal regulations found at 18 CFR 388.113(c)(i) and (ii) and by Presidential Directive dated December 17, 2003.

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). 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 facility consists of ~~four~~five ~~steam-electrical~~ generating units: Two fossil fuel oil/natural gas-fired units (Units 1&2), ~~and two nuclear units (Units 3&4)~~ and one combined cycle unit (Unit 5). Units 1&2 each have a ~~continuous~~ generating ~~capability~~capacity of 404 megawatts (MW), ~~and Units 3&4 each have a continuous-generating~~ ~~capability~~capacity of 693 MW and Unit 5 has a generating capacity of 1150 megawatts (MW).

WASTEWATER TREATMENT:

Wastewater from the Turkey Point facility consists of ~~a non-contact once-through condenser cooling water (OTCW),~~ auxiliary equipment cooling water (AECW), cooling tower blowdown, low-volume waste (LVW), and stormwater. LVW consists of chemical treatment system wastewater, boiler blowdown, heat recovery steam generator blowdown, reverse osmosis concentrate, condensate polishing system backwash water, and other process wastestreams. Stormwater includes stormwater associated with industrial activity and stormwater not associated with industrial activity.

OTCW, ~~and AECW~~ and cooling tower blowdown discharge to the facility's approximately 6,700 acre onsite closed loop cooling canal system. LVW, equipment area stormwater, and non-equipment area stormwater/drainage discharge either directly to the onsite closed loop cooling canal system or indirectly to the same system via solids settling basins and/or neutralization basin. The cooling canal system is not lined, and therefore, discharges to Class G-III groundwater. The cooling canal system does not discharge to surface waters of the state.

PERMITTEE:

PERMIT NUMBER: FL0001562 *(Rev. A)*

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

Issuance date: May 6, 2005
Expiration date: May 5, 2010

Additions to the permit are identified by italics and underline. Deletions are identified by strikethrough.

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. This permit does not authorize discharge to surface waters of the state.
2. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge non process wastewater consisting of non-contact once-through condenser cooling water (OTCW), non-contact auxiliary equipment cooling water (AECW), *cooling tower blowdown* and other wastestreams (as indicated in the permit renewal application *and permit revision application*) from Internal Outfall I-001 to the onsite feeder canal within the facility's onsite closed loop cooling canal system. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Maximum Daily Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Temperature (F), Water (DEG.F)	--	Report	--	Monthly	Instantaneous	OUI-1
Solids, Total Suspended (MG/L)	--	Report	--	Quarterly	Grab	OUI-1
pH (SU)	--	Report	Report	Quarterly	Grab	OUI-1
Salinity (PPT)	--	Report	--	Quarterly	Grab	OUI-1
Specific Conductance (UMHO/CM)	--	Report	--	Quarterly	Grab	OUI-1
Copper, Total Recoverable (UG/L)	--	Report	--	Semiannually	Grab	OUI-1
Iron, Total Recoverable (MG/L)	--	Report	--	Semiannually	Grab	OUI-1
Zinc, Total Recoverable (UG/L)	--	Report	--	Semiannually	Grab	OUI-1

3. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.2. and as described below:

Sample Point	Description of Monitoring Location
OUI-1	Cooling water discharge prior to entering the feeder canal within the closed loop cooling canal system

PERMITTEE:

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER: FL0001562 (*Rev. A*)

Issuance date: May 6, 2005
Expiration date: May 5, 2010

Additions to the permit are identified by italics and underline. Deletions are identified by strikethrough.

9. A permit revision from the Department shall be required prior to the use of any biocide or chemical additive, which may be toxic to aquatic life, (except as authorized elsewhere in this permit) in the cooling water system or any other portion of the industrial wastewater system. The permit revision request shall include:

- a. Name and general composition of biocide or chemical
- b. Frequencies of use
- c. Quantities to be used
- d. Proposed effluent concentrations
- e. Acute and/or chronic toxicity data (laboratory reports shall be prepared according to Section 12 of EPA document no. EPA/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 major or minor permit revision is necessary. Discharge associated with the use of such biocide or chemical is not authorized without prior authorization by the Department. Permit revisions shall be processed in accordance with the requirements of Chapter 62-620, F.A.C.

10. 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.

Discharge of Continuum AEC3145, Inhibitor AZ8101, Inhibitor OP8413, sulfuric acid, sodium hypochlorite, Foamtrol AF2290 and biocides such as Spectrus CT1300 or an equivalent product from the use of the cooling tower is authorized. Also chemicals used in the water treatment systems including soda ash, polymer, hydrated lime, Kleen MCT511, Betz Dearborn DCL30, Hypersperse MDC120 and Kleen MCT103, and products that may be used to clean the RO membranes including ROClean L212, ROClean L403, ROClean P111 and ROClean L811 or an equivalent product are authorized.

10. Hydrazine and Monoethanolamine (ETA) Monitoring Requirements

- a) Discharge of hydrazine, carbohydrazide, dimethylamine, and monoethanolamine (ETA) in the boiler or steam generator blowdown is authorized without limitation or monitoring requirements.
- b) Hydrazine from plant layup water during overhauls and/or refueling outages shall be measured at the outlet from the unit being serviced. Sampling shall be once per day of discharge by grab sample at the maximum expected concentration. Results of sampling will be submitted to the Department upon request. To determine the hydrazine concentration being discharged to the cooling canal system, the following equation shall be used:

$$\frac{(B/S) \text{ Blowdown Flow} \times (B/S) \text{ Hydrazine Concentration}}{\text{Once-through Cooling Water Flow}} = \text{Hydrazine concentration at the closed cycle cooling canal system}$$

Where (B/S) refers to boiler or steam generator

In the event that any value exceeds 3.4 mg/l, the permittee shall immediately modify its release pattern and resample. The Department's Southeast District office will be notified of the situation within five days.

11. Molybdate, Tolytriazole, and Nitrite Discharge Requirements

The discharge of molybdate, tolytriazole, and nitrite to the closed cycle recirculating cooling canal system

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

STATEMENT OF BASIS FOR REVISION TO INCLUDE UNIT 5

Permit Number: FL0001562

Permit Writer: Bala Nori

Application Date: May 16, 2006

Additional Information: August 8, 2006

Application No: FL0001562-006-IWB/MR

1. SYNOPSIS OF APPLICATION

A. Name and Address of Applicant

Florida Power & Light Company
Post Office Box 14000
Juno Beach, Florida 33408-0420

For:

Turkey Point Power Plant
9760 S.W. 344 Street
Florida City, Florida 33035

B. Description of Proposed Activity:

The Florida Power & Light Company (FPL) submitted a minor revision application dated May 16, 2006 for wastewater permit number FL0001562. The proposed permit modification is to authorize the discharge of wastewater streams from the new combined cycle electric generation unit (Unit 5) at Turkey Point Power Plant. On June 23, 2006, the Department requested additional information from FPL in order to process the application. The Department received FPL's response on August 8. Unit 5 is currently under construction. FPL filed a Site Certification application for Unit 5 with the Department in November 2003. The final Order of Certification was signed in February 2005.

All industrial wastewater generated from the operation and maintenance of Unit 5 is to be discharged to the existing cooling canal system, which does not discharge to surface waters of the State. Non-equipment storm water associated with Unit 5 will be collected and routed to three of the existing storm water detention ponds. Storm water detention pond 1 will flow into the natural environment directly west of the pond. Non-equipment area storm water collected in detention pond 3 will overflow into detention pond 2 and will be discharged through existing internal outfall I-001 to the cooling canal system. As a result, no new or expanded wastewater discharges to surface waters of the State are proposed for Unit 5.

The high-purity make-up water for the Unit 5 heat recovery steam generator (HRSG) will be produced through a reverse osmosis and demineralization system. The Department has authorized the use of chemical additives to further treat the HRSG make-up water for controlling pH, corrosion

and scale formation. These additives include hydrazine, an oxygen scavenger; ammonia or an amine; sodium hydroxide; and Optisperse HP 4930, a phosphate containing chemical.

The reject water and backwash from the reverse osmosis and demineralization system will be discharged through internal outfall I-001 to the existing cooling canal system. The Department has authorized the use of the following antifouling and cleaning chemicals for the reverse osmosis membranes: Betz Dearborn DCL 30, Hypersperse MDC120, Kleen MCT103, Kleen MCT511, ROClean L212, ROClean L403, ROClean P111 and ROClean L811 or an equivalent product.

Make-up water for the cooling tower will be supplied from Floridan Aquifer wells. The cooling tower blowdown will be discharged through internal outfall I-001 to the existing cooling canal system. The Department has authorized the use of the following chemical products to control pH, corrosion, fouling and foaming in the cooling tower: sulfuric acid; Inhibitor AZ8101; Inhibitor OP8413; Continuum AEC3145; Corrshield MD 4100; biocides, such as Spectrus CT1300 and sodium hypochlorite; and Foamtrol AF2290, an antifoaming agent.

After review of the application, the Department's Toxicity Coordinator decided that toxicity testing is not warranted since the cooling canal system does not discharge to surface waters of the State.

C. Revisions to the Permit:

The description of plant operations and treatment facilities provided on the cover page and pages 2 and 3 of the permit have been revised to incorporate operation activities associated with Unit 5. In addition, page 6 of the permit was revised to authorize the discharge of Continuum AEC3145, Inhibitor AZ8101, Inhibitor OP8413, sulfuric acid, sodium hypochlorite, Foamtrol AF2290 and biocides such as Spectrus CT1300 or an equivalent product from the use of the cooling tower. Also chemicals used in the water treatment systems including soda ash, polymer, hydrated lime, Kleen MCT511, Betz Dearborn DCL30, Hypersperse MDC120 and Kleen MCT103, and products that may be used to clean the RO membranes including ROClean L212, ROClean L403, ROClean P111 and ROClean L811 or an equivalent product.

This constitutes Revision A (Rev. A) to the permit. All changes to the permit are noted in Rev. A by underline or strike-through, with a margin bar indicating lines where changes have been made for this revision.

APPENDIX 10.2.2.5
FDEP INDUSTRIAL WASTEWATER FACILITY PERMIT
FILE #FL0001562-004-IW1N/NR
May 6, 2005



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

In the Matter of an
Application for Permit by:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Turkey Point Power Plant
9760 S.W. 344 Street
Florida City, FL 34428

DEP File # FL0001562-004-IW1N/NR
Miami-Dade County
Florida Power & Light Company

Attention: Mr. Terry O. Jones

NOTICE OF PERMIT

Enclosed is Permit Number FL0001562, issued under Section 403.0885, Florida Statutes and DEP Chapter 62-620, Florida Administrative Code, authorizing renewal of a "No Discharge" NPDES permit for internal discharge to an onsite closed-loop recirculating cooling canal system at the Turkey Point Power Plant located at 9670 S.W. 344 Street, Florida City, Miami-Dade County, Florida.

Any party to this order (permit) has the right to seek judicial review of the permit 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 thirty days after this notice 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) 245-8336

"More Protection, Less Process"

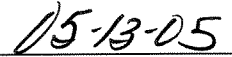
Printed on recycled paper.

FILING AND ACKNOWLEDGMENT

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



Clerk



Date

Copies furnished to:

Roosevelt Childress, EPA
Chairman, Miami-Dade County Board of Commissioners
Tim Powell, P.E., DEP SED, West Palm Beach
Buck Oven, P.E., DEP Tallahassee
Betsy Hewitt, DEP Tallahassee (w/o enclosure)

SECOND AMENDMENT TO THE FACT SHEET

DATE: January 28, 2004

PERMIT NUMBER: FL0001562

PERMITTEE: Florida Power & Light Company
Turkey Point Power Plant

The following minor corrections have been made to the proposed permit. None of these corrections alter any of the discharge limitations monitoring requirements in the permit.

1. Permittee Comments

The Permittee requested the following minor corrections to the permit.

Typographical errors in the Draft Permit: The Applicant pointed out several typographical errors by the Department which are not listed in the items below. The Department has corrected these errors, which were non-substantive and did not affect any permit limitations or monitoring requirements.

Condition I.A.6.&7. The Permittee pointed out that that previous permits did not include these conditions, which refer to floating foam and visible sheen on surface waters of the state due to discharge of wastewater. The Permittee noted that the conditions are not appropriate because the facility does not discharge to surface waters. The Department concurs, and notes that it included the conditions in error. The conditions have been deleted from the final permit.

**STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT**

PERMITTEE:

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER:

FL0001562 (Major)

PA FILE NUMBER:

FL0001562-004-IW1N

ISSUANCE DATE:

May 6, 2005

EXPIRATION DATE:

May 5, 2010

RESPONSIBLE AUTHORITY:

Mr. Terry O. Jones
Vice President

FACILITY:

FPL Turkey Point Power Plant
9760 S.W. 344 Street
Florida City, FL 33035
Dade County

Latitude: See Note Below Longitude: See Note Below

Note: Latitude and longitude are not shown at Permittee's request, for purposes of Homeland Security pursuant to federal regulations found at 18 CFR 388.113(c)(i) and (ii) and by Presidential Directive dated December 17, 2003.

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). 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 facility consists of four steam-electric generating units: Two fossil fuel oil-fired units (Units 1&2) and two nuclear units (Units 3&4). Units 1&2 each have a continuous generating capability of 404 megawatts (MW), and Units 3&4 each have a continuous generating capability of 693 MW.

WASTEWATER TREATMENT:

Wastewater from the Turkey Point facility consists of a non-contact once-through condenser cooling water (OTCW), auxiliary equipment cooling water (AECW), low-volume waste (LVW), and stormwater. LVW consists of chemical treatment system wastewater, boiler blowdown, reverse osmosis concentrate, condensate polishing system backwash water, and other process wastestreams. Stormwater includes stormwater associated with industrial activity and stormwater not associated with industrial activity.

OTCW and AECW discharge to the facility's approximately 6,700 acre onsite closed loop cooling canal system. LVW, equipment area stormwater, and non-equipment area stormwater/drainage discharge either directly to the onsite closed loop cooling canal system or indirectly to the same system via solids settling basins and/or neutralization basin. The cooling canal system is not lined, and therefore, discharges to Class G-III groundwater. The cooling canal system does not discharge to surface waters of the state.

PERMITTEE:

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER:

FL0001562

Issuance date:

May 6, 2005

Expiration date:

May 5, 2010

EFFLUENT DISPOSAL:

Surface Water Discharge:

This permit does not authorize discharge to surface waters of the state.

Internal Outfalls:

This permit authorizes discharge from existing internal outfalls I-001 and I-002 to the facility's onsite closed loop cooling canal system.

Groundwater Discharge

This permit authorizes an existing discharge from the onsite closed loop cooling canal system to the surficial aquifer which is a Class G-III groundwater.

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 3 through 14 of this permit.

PERMITTEE:

PERMIT NUMBER: FL0001562

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

Issuance date: May 6, 2005
Expiration date: May 5, 2010

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. This permit does not authorize discharge to surface waters of the state.
2. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge non process wastewater consisting of non-contact once-through condenser cooling water (OTCW), non-contact auxiliary equipment cooling water (AECW), and other wastestreams (as indicated in the permit renewal application) from Internal Outfall I-001 to the onsite feeder canal within the facility's onsite closed loop cooling canal system. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Maximum Daily Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Temperature (F), Water (DEG.F)	--	Report	--	Monthly	Instantaneous	OUI-1
Solids, Total Suspended (MG/L)	--	Report	--	Quarterly	Grab	OUI-1
pH (SU)	--	Report	Report	Quarterly	Grab	OUI-1
Salinity (PPT)	--	Report	--	Quarterly	Grab	OUI-1
Specific Conductance (UMHO/CM)	--	Report	--	Quarterly	Grab	OUI-1
Copper, Total Recoverable (UG/L)	--	Report	--	Semiannually	Grab	OUI-1
Iron, Total Recoverable (MG/L)	--	Report	--	Semiannually	Grab	OUI-1
Zinc, Total Recoverable (UG/L)	--	Report	--	Semiannually	Grab	OUI-1

3. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.2. and as described below:

Sample Point	Description of Monitoring Location
OUI-1	Cooling water discharge prior to entering the feeder canal within the closed loop cooling canal system

PERMITTEE:

Florida Power & Light Company
9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER: FL0001562

Issuance date: May 6, 2005
Expiration date: May 5, 2010

4. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge process wastewater and stormwater from Internal Outfall I-002 into the facility's onsite closed loop cooling canal system. 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
Solids, Total Suspended (MG/L)	--	Report	--	Semiannually	Grab	OUI-2
PH (SU)	--	Report	Report	Monthly	Grab	OUI-2
Specific Conductance (UMHO/CM)	--	Report	--	Quarterly	Grab	OUI-2
Lead, Total Recoverable (UG/L)	--	Report	--	Semiannually	Grab	OUI-2
Oil and Grease (MG/L)	--	Report	--	Semiannually	Grab	OUI-2
Copper, Total Recoverable (UG/L)	--	Report	--	Semiannually	Grab	OUI-2
Zinc, Total Recoverable (UG/L)	--	Report	--	Semiannually	Grab	OUI-2

5. 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
OUI-2	discharge from the two solids settling basins or neutralization basin prior to mixing with water in the closed loop cooling canal system

B. Underground Injection Control Systems

1. This section is not applicable to this permit. Discharge by underground injection is regulated under permit UC-13-277655.

C. Land Application Systems

1. This section is not applicable to this facility.

D. Other Methods of Disposal or Recycling

1. 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. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Southeast District Office Discharge Monitoring Reports (DMRs) in accordance

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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 th 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's Southeast District Office at the address specified in Permit Condition I.E.2.

2. 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 North Congress, Suite 200
West Palm Beach, FL 33401-3303
Phone Number - (561) 681-6702

3. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.
4. The permittee shall provide safe access points for obtaining representative samples which are required by this permit.
5. 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.
6. 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 that is bypassed. Monitoring results shall be reported to the Department.
7. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.
8. This permit authorizes the use of the following biocides, or their generic equivalents, in various closed cooling water systems without limitations or monitoring; NALCO 7338, NALCO 7330, NALCO 7348, BULAB 6001/6002, BETZ POWERLINE 3610. The Permittee shall notify the Department if there is a discharge of any of these products into the closed cycle cooling canal system in other than de-minimus amounts which contain concentrations of active ingredients above the MDLs for those ingredients.

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9. A permit revision from the Department shall be required prior to the use of any biocide or chemical additive, which may be toxic to aquatic life, (except as authorized elsewhere in this permit) in the cooling water system or any other portion of the industrial wastewater system. The permit revision request shall include:

- a. Name and general composition of biocide or chemical
- b. Frequencies of use
- c. Quantities to be used
- d. Proposed effluent concentrations
- e. Acute and/or chronic toxicity data (laboratory reports shall be prepared according to Section 12 of EPA document no. EPA/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 major or minor permit revision is necessary. Discharge associated with the use of such biocide or chemical is not authorized without prior authorization by the Department. Permit revisions shall be processed in accordance with the requirements of Chapter 62-620, F.A.C.

10. 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.

11. Hydrazine and Monoethanolamine (ETA) Monitoring Requirements

- a) Discharge of hydrazine, carbohydrazide, dimethylamine, and monoethanolamine (ETA) in the boiler or steam generator blowdown is authorized without limitation or monitoring requirements.
- b) Hydrazine from plant layup water during overhauls and/or refueling outages shall be measured at the outlet from the unit being serviced. Sampling shall be once per day of discharge by grab sample at the maximum expected concentration. Results of sampling will be submitted to the Department upon request. To determine the hydrazine concentration being discharged to the cooling canal system, the following equation shall be used:

$$\frac{(B/S) \text{ Blowdown Flow} \times (B/S) \text{ Hydrazine Concentration}}{\text{Once-through Cooling Water Flow}} = \text{Hydrazine concentration at the closed cycle cooling canal system}$$

Where (B/S) refers to boiler or steam generator

In the event that any value exceeds 3.4 mg/l, the permittee shall immediately modify its release pattern and resample. The Department's Southeast District office will be notified of the situation within five days.

12. Molybdate, Tolytriazole, and Nitrite Discharge Requirements

The discharge of molybdate, tolytriazole, and nitrite to the closed cycle recirculating cooling canal system during maintenance of the auxiliary closed water system is allowed without limitations and monitoring requirements.

13. Non-discharging/Closed Loop Vehicle Wash Recycle System Requirements

- a) No discharge of recycle system wastewater, including filter backwash water, is authorized to surface water or to ground water.

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- b) The rainwater diversion system shall be operated in accordance with the facility's Best Management Practice Procedure as indicated on amended drawing No. 297-036, Alternate No. 6, signed and sealed 4/23/99.
 - c) A placard shall be conspicuously posted in the area of the non-discharging/closed loop recycle equipment which indicates the proper operation of the rainwater diversion system i.e. TRUCK WASH RAINWATER VALVE OPERATING PROCEDURE as indicated on amended drawing No. 297-036 Alternate No. 6, signed and sealed 4/23/99.
 - d) d) Spent process wastewater shall be disposed of at a Department permitted wastewater treatment facility which is capable of treating the wastewater.
 - e) Any oil collected from the oil/water separator shall be disposed by a licensed used oil recycler in accordance with Florida Administrative Code 62-710 or otherwise recycled on site through Department approved methods and procedures.
 - f) Any accidental discharge to ground water or surface water shall be reported to the Southeast District office.
14. Notwithstanding any other requirements of this "No Discharge" permit, the permittee shall comply with all applicable provisions of the Final Judgement dated September 10, 1971, in Civil Action Number 70-328-CA issued by the U.S. District Judge C. Clyde Atkins of the Southern District of Florida.

II. Industrial Sludge Management Requirements

A. Basic Management Requirements

- 1. Sludge or other solids generated from the facility shall be reused, reclaimed, or otherwise disposed of in accordance with the requirements of Chapter 62-701, F.A.C.
- 2. The permittee shall keep records at the facility of the amount of sludge or residuals disposed, transported, or incinerated. If a person other than the permittee is responsible for sludge transporting, disposal, or incineration, the permittee shall also keep the following records:
 - a. name, address and telephone number of any transporter, and any manifests or bill of lading used;
 - b. name and location of the site of disposal, treatment or incineration;
 - c. name, address, and telephone number of the entity responsible for the disposal, treatment, or incineration site.

III. Ground Water Monitoring Requirements

- 1. This section is not applicable to this facility.

IV. Other Land Application Requirements

- 1. 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. and 62-520.430, F.A.C.

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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:

Operational level attained	Issuance Date of 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.

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 Southeast District Office, are made a part hereof.

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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.
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 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 application.

E. Reopener Clause

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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 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, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., 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 deviation from the approved drawings, exhibits, specifications or conditions of this permit constitutes 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

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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.]
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.]

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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 Department approves the transfer. *[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 Rule 62-620.300, F.A.C., 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), F.A.C., 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.]*
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. A description of the anticipated noncompliance;
 - b. The period of the anticipated noncompliance, including dates and times; and
 - c. 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, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.
 - a. 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).
 - b. If the permittee monitors any contaminate 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.
 - c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
 - d. 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(4), 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.
 - e. Fields 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. *[62-620.610(18), 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

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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.

a. The following shall be included as information which must be reported within 24 hours under this condition:

- (1) Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
- (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
- (3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
- (4) Any unauthorized discharge to surface or ground waters.

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.

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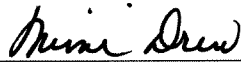
- b. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition 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 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 A. Drew
Director, Division of Water Resource Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(850) 245-8592

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed mail this report to: Department of Environmental Protection, Wastewater Compliance Evaluation Section, MS 3551 , 2600 Blair Stone Road, Tallahassee, FL 32399-2400

PERMITTEE NAME: Florida Power & Light Company
MAILING ADDRESS: 9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER FL0001562

LIMIT: Final
CLASS SIZE: Major

REPORT: Monthly
GROUP: Industrial

FACILITY: FPL Turkey Point Power Plant
LOCATION: 9760 S.W. 344 Street
Florida City, FL 33035

MONITORING GROUP NUMBER: I-001
MONITORING GROUP DESC: non-contact once through condenser cooling water

COUNTY: Dade

NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Temperature (F), Water	Sample Measurement										
PARM Code 00011 P Mon. Site No. OUI-1	Permit Requirement					Report (Day.Max.)		DEG.F		Monthly	Instantaneous
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (YY/MM/DD)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed mail this report to: Department of Environmental Protection, Wastewater Compliance Evaluation Section, MS 3551 , 2600 Blair Stone Road, Tallahassee, FL 32399-2400

PERMITTEE NAME: Florida Power & Light Company
MAILING ADDRESS: 9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER FL0001562

LIMIT: Final
CLASS SIZE: Major

REPORT: Quarterly
GROUP: Industrial

FACILITY: FPL Turkey Point Power Plant
LOCATION: 9760 S.W. 344 Street
Florida City, FL 33035

MONITORING GROUP NUMBER: I-001
MONITORING GROUP DESC: non-contact once through condenser cooling water

COUNTY: Dade

NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 P Mon. Site No. OUI-1	Permit Requirement					Report (Day.Max.)		MG/L		Quarterly	Grab
pH	Sample Measurement										
PARM Code 00400 P Mon. Site No. OUI-1	Permit Requirement					Report (Day.Min.)	Report (Day.Max.)	SU		Quarterly	Grab
Salinity	Sample Measurement										
PARM Code 00480 P Mon. Site No. OUI-1	Permit Requirement					Report (Day.Max.)		PPT		Quarterly	Grab
Specific Conductance	Sample Measurement										
PARM Code 00095 P Mon. Site No. OUI-1	Permit Requirement					Report (Day.Max.)		UMHO/CM		Quarterly	Grab
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										

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PERMITTEE NAME: Florida Power & Light Company
MAILING ADDRESS: 9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER FL0001562

LIMIT: Final
CLASS SIZE: Major
REPORT: Semiannual
GROUP: Industrial

FACILITY: FPL Turkey Point Power Plant
LOCATION: 9760 S.W. 344 Street
Florida City, FL 33035

MONITORING GROUP NUMBER: I-001
MONITORING GROUP DESC: non-contact once through condenser cooling water

COUNTY: Dade

NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Copper, Total Recoverable	Sample Measurement										
PARM Code 01119 P Mon. Site No. OUI-1	Permit Requirement						Report (Day.Max.)	UG/L		Semiannually	Grab
Iron, Total Recoverable	Sample Measurement										
PARM Code 00980 P Mon. Site No. OUI-1	Permit Requirement						Report (Day.Max.)	MG/L		Semiannually	Grab
Zinc, Total Recoverable	Sample Measurement										
PARM Code 01094 P Mon. Site No. OUI-1	Permit Requirement						Report (Day.Max.)	UG/L		Semiannually	Grab
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										

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DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed mail this report to: Department of Environmental Protection, Wastewater Compliance Evaluation Section, MS 3551 , 2600 Blair Stone Road, Tallahassee, FL 32399-2400

PERMITTEE NAME: Florida Power & Light Company
MAILING ADDRESS: 9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER FL0001562

LIMIT: Final
CLASS SIZE: Major

REPORT: Monthly
GROUP: Industrial

FACILITY: FPL Turkey Point Power Plant
LOCATION: 9760 S.W. 344 Street
Florida City, FL 33035

MONITORING GROUP NUMBER: I-002
MONITORING GROUP DESC: low volume wastewater (LVW) and equipment area stormwater discharged

COUNTY: Dade

NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
pH	Sample Measurement										
PARM Code 00400 P Mon. Site No. OUI-002	Permit Requirement				Report (Day.Min.)	Report (Day.Max.)		SU		Monthly	Grab
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
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DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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PERMITTEE NAME: Florida Power & Light Company
MAILING ADDRESS: 9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER FL0001562

LIMIT: Final
CLASS SIZE: Major

REPORT: Quarterly
GROUP: Industrial

FACILITY: FPL Turkey Point Power Plant
LOCATION: 9760 S.W. 344 Street
Florida City, FL 33035

MONITORING GROUP NUMBER: I-002
MONITORING GROUP DESC: low volume wastewater (LVW) and equipment area stormwater discharged

COUNTY: Dade

NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Specific Conductance	Sample Measurement										
PARM Code 00095 P Mon. Site No. OUI-002	Permit Requirement					Report (Day.Max.)		UMHO/CM		Quarterly	Grab
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										
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DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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PERMITTEE NAME: Florida Power & Light Company
MAILING ADDRESS: 9760 S.W. 344 Street
Florida City, FL 33035

PERMIT NUMBER FL0001562

LIMIT: Final
CLASS SIZE: Major

REPORT: Semiannual
GROUP: Industrial

FACILITY: FPL Turkey Point Power Plant
LOCATION: 9760 S.W. 344 Street
Florida City, FL 33035

MONITORING GROUP NUMBER: I-002
MONITORING GROUP DESC: low volume wastewater (LVW) and equipment area stormwater discharged

COUNTY: Dade

NO DISCHARGE FROM SITE: ☐

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 P Mon. Site No. OUI-002	Permit Requirement						Report (Day.Max.)	MG/L		Semiannually	Grab
Lead, Total Recoverable	Sample Measurement										
PARM Code 01114 P Mon. Site No. OUI-002	Permit Requirement						Report (Day.Max.)	UG/L		Semiannually	Grab
Oil and Grease	Sample Measurement										
PARM Code 00556 P Mon. Site No. OUI-002	Permit Requirement						Report (Day.Max.)	MG/L		Semiannually	Grab
Copper, Total Recoverable	Sample Measurement										
PARM Code 01119 P Mon. Site No. OUI-002	Permit Requirement						Report (Day.Max.)	UG/L		Semiannually	Grab
Zinc, Total Recoverable	Sample Measurement										
PARM Code 01094 P Mon. Site No. OUI-002	Permit Requirement						Report (Day.Max.)	UG/L		Semiannually	Grab
	Sample Measurement										
	Permit Requirement										

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NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (YY/MM/DD)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

INSTRUCTIONS FOR COMPLETING THE WASTEWATER DISCHARGE MONITORING REPORT

Read these instructions as well as the SUPPLEMENTAL INSTRUCTIONS FOR COMPLETING THE WASTEWATER DISCHARGE MONITORING REPORT before completing the DMR. Hard copies and/or electronic copies of the required parts of the DMR were provided with the permit. All required information shall be completed in full and typed or printed in ink. A signed, original DMR shall be mailed to the address printed on the DMR by the 28th of the month following the monitoring period. The DMR shall not be submitted before the end of the monitoring period.

The DMR consists of three parts--A, B, and D--all of which may or may not be applicable to every facility. Facilities may have one or more Part A's for reporting effluent or reclaimed water data. All domestic wastewater facilities will have a Part B for reporting daily sample results. Part D is used for reporting ground water monitoring well data.

When results are not available, the following codes should be used on parts A and D of the DMR and an explanation provided where appropriate. Note: Codes used on Part B for raw data are different.

CODE	DESCRIPTION/INSTRUCTIONS
ANC	Analysis not conducted.
DRY	Dry Well
FLD	Flood disaster.
IFS	Insufficient flow for sampling.
LS	Lost sample.
MNR	Monitoring not required this period.

CODE	DESCRIPTION/INSTRUCTIONS
NOD	No discharge from/to site.
OPS	Operations were shutdown so no sample could be taken.
OTH	Other. Please enter an explanation of why monitoring data were not available.
SEF	Sampling equipment failure.

When reporting analytical results that fall below a laboratory's reported method detection limits or practical quantification limits, the following instructions should be used:

1. Results greater than or equal to the PQL shall be reported as the measured quantity.
2. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. These values shall be deemed equal to the MDL when necessary to calculate an average for that parameter and when determining compliance with permit limits.
3. Results less than the MDL shall be reported by entering a less than sign ("<") followed by the laboratory's MDL value, e.g. < 0.001. A value of one-half the MDL or one-half the effluent limit, whichever is lower, shall be used for that sample when necessary to calculate an average for that parameter. Values less than the MDL are considered to demonstrate compliance with an effluent limitation.

PART A -DISCHARGE MONITORING REPORT (DMR)

Part A of the DMR is comprised of one or more sections, each having its own header information. Facility information is preprinted in the header as well as the monitoring group number, whether the limits and monitoring requirements are interim or final, and the required submittal frequency (e.g. monthly, annually, quarterly, etc.). Submit Part A based on the required reporting frequency in the header and the instructions shown in the permit. The following should be completed by the permittee or authorized representative:

No Discharge From Site: Check this box if no discharge occurs and, as a result, there are no data or codes to be entered for all of the parameters on the DMR for the entire monitoring group number; however, if the monitoring group includes other monitoring locations (e.g., influent sampling), the "NOD" code should be used to individually denote those parameters for which there was no discharge.

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Sample Measurement: Before filling in sample measurements in the table, check to see that the data collected correspond to the limit indicated on the DMR (i.e. interim or final) and that the data correspond to the monitoring group number in the header. Enter the data or calculated results for each parameter on this row in the non-shaded area above the limit. Be sure the result being entered corresponds to the appropriate statistical base code (e.g. annual average, monthly average, single sample maximum, etc.) and units.

No. Ex.: Enter the number of sample measurements during the monitoring period that exceeded the permit limit for each parameter in the non-shaded area. If none, enter zero.

Frequency of Analysis: The shaded areas in this column contain the minimum number of times the measurement is required to be made according to the permit. Enter the actual number of times the measurement was made in the space above the shaded area.

Sample Type: The shaded areas in this column contain the type of sample (e.g. grab, composite, continuous) required by the permit. Enter the actual sample type that was taken in the space above the shaded area.

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comment and Explanation of Any Violations: Use this area to explain any exceedances, any upset or by-pass events, or other items which require explanation. If more space is needed, reference all attachments in this area.

PART B - DAILY SAMPLE RESULTS

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Daily Monitoring Results: Transfer all analytical data from your facility's laboratory or a contract laboratory's data sheets for all day(s) that samples were collected. Record the data in the units indicated. Table 1 in Chapter 62-160, F.A.C., contains a complete list of all the data qualifier codes that your laboratory may use when reporting analytical results. However, when transferring numerical results onto Part B of the DMR, only the following data qualifier codes should be used and an explanation provided where appropriate.

CODE	DESCRIPTION/INSTRUCTIONS
<	The compound was analyzed for but not detected.
A	Value reported is the mean (average) of two or more determinations.
J	Estimated value, value not accurate.
Q	Sample held beyond the actual holding time.
Y	Laboratory analysis was from an unpreserved or improperly preserved sample.

Add the results to get the Total and divide by the number of days in the month to get the Monthly Average.

Plant Staffing: List the name, certificate number, and class of all state certified operators operating the facility during the monitoring period. Use additional sheets as necessary.

PART D - GROUND WATER MONITORING REPORT

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Date Sample Obtained: Enter the date the sample was taken. Also, check whether or not the well was purged before sampling.

Time Sample Obtained: Enter the time the sample was taken.

Sample Measurement: Record the results of the analysis. If the result was below the minimum detection limit, indicate that.

Detection Limits: Record the detection limits of the analytical methods used.

Analysis Method: Indicate the analytical method used. Record the method number from Chapter 62-160 or Chapter 62-601, F.A.C., or from other sources.

Sampling Equipment Used: Indicate the procedure used to collect the sample (e.g. airlift, bucket/bailer, centrifugal pump, etc.)

Samples Filtered: Indicate whether the sample obtained was filtered by laboratory (L), filtered in field (F), or unfiltered (N).

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comments and Explanation: Use this space to make any comments on or explanations of results that are unexpected. If more space is needed, reference all attachments in this area.

SPECIAL INSTRUCTIONS FOR LIMITED WET WEATHER DISCHARGES

Flow (Limited Wet Weather Discharge): Enter the measured average flow rate during the period of discharge or divide gallons discharged by duration of discharge (converted into days). Record in million gallons per day (MGD).

Flow (Upstream): Enter the average flow rate in the receiving stream upstream from the point of discharge for the period of discharge. The average flow rate can be calculated based on two measurements; one made at the start and one made at the end of the discharge period. Measurements are to be made at the upstream gauging station described in the permit.

Actual Stream Dilution Ratio: To calculate the Actual Stream Dilution Ratio, divide the average upstream flow rate by the average discharge flow rate. Enter the Actual Stream Dilution Ratio accurate to the nearest 0.1.

No. of Days the SDF > Stream Dilution Ratio: For each day of discharge, compare the minimum Stream Dilution Factor (SDF) from the permit to the calculated Stream Dilution Ratio. On Part B of the DMR, enter an asterisk (*) if the SDF is greater than the Stream Dilution Ratio on any day of discharge. On Part A of the DMR, add up the days with an "*" and record the total number of days the Stream Dilution Factor was greater than the Stream Dilution Ratio.

CBOD₅: Enter the average CBOD₅ of the reclaimed water discharged during the period shown in duration of discharge.

TKN: Enter the average TKN of the reclaimed water discharged during the period shown in duration of discharge.

Actual Rainfall: Enter the actual rainfall for each day on Part B. Enter the actual cumulative rainfall to date for this calendar year and the actual total monthly rainfall on Part A. The cumulative rainfall to date for this calendar year is the total amount of rain, in inches, that has been recorded since January 1 of the current year through the month for which this DMR contains data.

Rainfall During Average Rainfall Year: On Part A, enter the total monthly rainfall during the average rainfall year and the cumulative rainfall for the average rainfall year. The cumulative rainfall for the average rainfall year is the amount of rain, in inches, which fell during the average rainfall year from January through the month for which this DMR contains data.

No. of Days LWWD Activated During Calendar Year: Enter the cumulative number of days that the limited wet weather discharge was activated since January 1 of the current year.

Reason for Discharge: Attach to the DMR a brief explanation of the factors contributing to the need to activate the limited wet weather discharge.

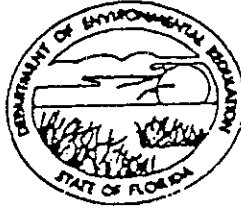
APPENDIX 10.2.2.6

**FDER AMENDMENT TO PERMIT IO3-57079
(Groundwater G-III Designation)
September 6, 1983**

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA
DISTRICT

P.O. BOX 3858
3301 GUN CLUB ROAD
WEST PALM BEACH FLORIDA 33402-3858



BOB GRAMM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ROY M. DUKE
DISTRICT MANAGER

RECEIVED

SEP 7 1983

September 6, 1983

*File with
10-13-22117*

Mr. W.J. Barrow, Jr.
Manager of Permitting & Programs
Florida Power & Light Company
Environmental Affairs Department
Post Office Box 14000
Juno Beach, Florida 33408

IW - Dade County
Florida Power & Light Co.
Turkey Point Power Plant

Dear Mr. Barrow:

Re: Request to Amend Operating Permit IO 13-57079, Florida Power & Light Company Turkey Point Power Plant Wastewater Treatment Plant, to Change the designation of the Groundwater from Class G-II to Class G-III

This office has reviewed your request to amend your operating permit, IO 13-57079 to change the designation of the groundwater from Class G-II to Class G-III. Based on the August 5, 1983 meeting at our office and related documentation and review it was decided that a certain portion of the area should be designated as Class G-III groundwaters. Your request for the amendment of operating permit IO 13-57079 is hereby approved.

The permit is changed as follows:

Page 1 - Description change to:

To operate a Liquid Industrial Waste Treatment and Disposal Facility treating and disposing of Liquid Industrial Waste from the generation of electricity by steam. A volume of 2853.3 MGD of condenser cooling water and a volume of 55,470 GPD of treated waste water is discharged to a closed loop cooling canal system. A part of the water contained in the canal is recirculated through the cooling system for the steam plant condensers, a part is discharged through an area of 6,700 acres to groundwater as described in Specific Condition #2. Residues in the solids settling basins and the oil in the Oil/Water Separators are removed periodically by outside contractors.

Mr. W.J. Barrow, Jr.
September 6, 1983
Page 2 of 2

Page 3 - Specific Condition 2 Change to:

Specific Condition

2. The Zone of Discharge shall be in accordance with 17-4.245 FAC and is described as follows:

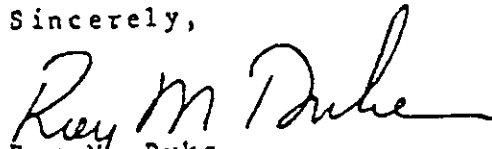
The area bounded by a line along the west bank of the interceptor ditch and extending northeasterly to the Turkey Point Plant entry road; then due eastward from this junction to Biscayne Bay; and a line along the west bank of the interceptor ditch extending southward to the Sea Dade Canal, to Card Sound, then north along the coastline to intersect with the north boundary.

The groundwaters contained in this area are classified as G-III Groundwaters.

All other conditions of the original permit shall remain in effect for the duration of the permit. This letter shall be attached to the original permit and becomes a part thereof.

Should you have any questions please contact this office, telephone 305/689-5800.

Sincerely,


Roy M. Duke
District Manager

RMD:wkj/b

cc: Metro Dade County Environmental Resource Management
Don Kell, Groundwater Section