

APPENDIX 10.6

EXISTING STATE PERMITS

APPENDIX 10.6.1

CONDITIONS OF CERTIFICATION

**CRYSTAL RIVER ENERGY COMPLEX
UNIT 3 NUCLEAR PLANT
UNIT 4 AND UNIT 5 FOSSIL PLANT
PA 77-09P**

**STATE OF FLORIDA
DEPARTMENT
OF
ENVIRONMENTAL PROTECTION**



Conditions of Certification

**Progress Energy Florida
Crystal River Energy Complex
Unit 3 Nuclear Plant
Unit 4 and Unit 5 Fossil Plant**

PA 77-09P

August 1, 2012

Table of Contents

SECTION A: GENERAL CONDITIONS	1
I. SCOPE	1
II. APPLICABLE DEPARTMENT RULES	2
III. REVISIONS TO DEPARTMENT STATUTES AND RULES	4
IV. DEFINITIONS	4
V. DEPARTMENT PERMITS UNDER FEDERAL PROGRAMS	6
A. Air	6
B. Water	6
VI. DESIGN AND PERFORMANCE CRITERIA	7
VII. NOTIFICATION	8
VIII. REPLACEMENT FOR RESTORATION OF SYSTEM INTEGRITY	8
IX. CONSTRUCTION PRACTICES	9
A. Local Building Codes	9
B. Open Burning.....	9
C. Flood Control Protection.....	9
D. Underground Utilities	9
E. Electric and Magnetic Fields (EMF).....	9
F. Existing Wells	10
X. RIGHT OF ENTRY	10
XI. DISPUTE RESOLUTION	10
XII. SEVERABILITY	10
XIII. ENFORCEMENT	10
XIV. REVOCATION OR SUSPENSION	11
XV. REGULATORY COMPLIANCE	11
XVI. CIVIL AND CRIMINAL LIABILITY	11
XVII. USE OF STATE LANDS	12
XVIII. PROCEDURAL RIGHTS	12
XIX. AGENCY ADDRESSES FOR POST-CERTIFICATION SUBMITTALS AND NOTICES	13
XX. PROCEDURES FOR POST-CERTIFICATION SUBMITTALS	14
A. Purpose of Submittals	14

B.	Filings	14
C.	Completeness	14
D.	Interagency Meetings.....	15
E.	Determination of Compliance.....	15
F.	Commencement of Construction	15
G.	Revisions to Design Previously Reviewed for Compliance	15
H.	Variation to Submittal Requirements.....	15
XXI.	POST-CERTIFICATION SUBMITTAL REQUIREMENTS SUMMARY.....	15
XXII.	POST CERTIFICATION AMENDMENTS	16
XXIII.	MODIFICATION OF CERTIFICATION	16
XXIV.	INCORPORATION OF EXISTING STATE AND LOCAL PERMITS/LICENSES	17
XXV.	COASTAL ZONE CONSISTENCY	17
XXVI.	FINANCIAL RESPONSIBILITY.....	17
XXVII.	TRANSFER OF CERTIFICATION.....	18
XXVIII.	LABORATORIES AND QUALITY ASSURANCE.....	18
XXIX.	ENVIRONMENTAL RESOURCES.....	18
A.	General.....	18
B.	Surface Water Management.....	19
C.	Wetland and Other Surface Water Impacts	21
XXX.	THIRD PARTY IMPACTS	22
XXXI.	FACILITY OPERATION	22
XXXII.	RECORDS MAINTAINED AT THE FACILITY.....	22
XXXIII.	WATER DISCHARGES.....	23
A.	Discharges.....	23
XXXIV.	SOLID AND HAZARDOUS WASTE	23
A.	Solid Waste	23
B.	Hazardous Waste and Used Oil	23
C.	Hazardous Substance Release Notification	24
D.	Contaminated Site Cleanup.....	24
XXXV.	STORAGE TANK SYSTEMS.....	25

SECTION B: SPECIFIC CONDITIONS	26
I. DEPARTMENT OF ENVIRONMENTAL PROTECTION - UNIT 4 & UNIT 5 SPECIFIC CONDITIONS	26
A. Air	26
B. Water Discharges.....	26
C. Sludge/Solids Management Requirements	27
D. Environmental Resource Permitting (Gypsum Handling/Storage Pad).....	28
E. Solid Wastes Management Plan.....	28
F. Ash Landfill and Coal Storage Area	29
G. Units 4 & 5 Domestic Waste Water Treatment System	31
H. Crystal River North Area Specific Environmental Resource Conditions.....	40
II. DEP UNIT 3 SPECIFIC CONDITIONS	40
A. Water Discharges	40
B. Environmental Resource Review for South Cooling Tower and Unit 3 Laydown/Parking Areas.....	41
C. Domestic Wastewater Treatment.....	41
D. Radiological	42
E. Independent Spent Fuel Storage Installation Surface Water Management System.....	43
III. DEP FACILITY-WIDE SPECIFIC CONDITIONS	44
A. Groundwater Monitoring Requirements	44
B. Water Quality Criteria Exemptions	46
C. Transformer and Electric Switching Gear	46
D. Public Water System.....	46
IV. DEPARTMENT OF TRANSPORTATION.....	47
A. Access Management to the State Highway System.....	47
B. Overweight or Overdimensional Loads	47
C. Use of State of Florida Right of Way or Transportation Facilities.....	47
D. Standards.....	47
E. Drainage.....	47
F. Use of Air Space	47
G. Best Management Practices	48
V. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION.....	48

	A.	Listed Species Survey.....	48
	B.	Listed Species Locations.....	49
VI.		DEPARTMENT OF STATE – DIVISION OF HISTORICAL RESOURCES ...	49
VII.		DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES	50
VIII.		SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT -UNIT 4 AND UNIT 5 SPECIFIC CONDITIONS	50
	A.	Withdrawal Quantities and Facilities.....	50
	B.	Submit Reports/Data.....	51
	C.	Environmental Impacts, Monitoring, and Mitigation: Environmental Assessment.....	51
	D.	Alternative Water Supply Implementation	53
	E.	Compliance Reporting	54
	F.	Pumpage Reporting.....	55
	G.	Distribution Flexibility.....	56
	H.	Water quality sampling.....	56
	I.	Wells	59
	J.	Standard Conditions.....	60
VII.		SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT-UNIT 3 SPECIFIC CONDITIONS	62
VIII.		LOCAL GOVERNMENT- Citrus County	63
HISTORY		Formerly Section C, V History.....	63

List of Attachments

Attachment A: Boundaries of Certified Site

Attachment B: Ambient Air Monitoring Locations

Attachment C: Discharge Monitoring Report

Attachment D: Leachate Monitoring and Testing Program

Attachment E: Storm water Operation and Maintenance Plan

Attachment F: Crystal River North Area (CRN) Drainage Basins

Attachment G: Final Order Granting a Water Quality Criteria Exemption for Sodium

Attachment H: Groundwater Monitoring, Operation and Maintenance Requirements

Attachment I: Crystal River Groundwater Monitoring Wells

List of Appendices

Appendix I: a. NPDES Permit FL0036366

 b. NPDES Permit FL0000159

Appendix II: WUP 20004695.004

SECTION A: GENERAL CONDITIONS

SECTION A: GENERAL CONDITIONS

I. SCOPE

A. Pursuant to sections 403.501-518, Florida Statutes (F.S.), the Florida Electrical Power Plant Siting Act (PPSA), this certification is issued to Progress Energy Florida, Inc. (PEF) as owner/operator of the Crystal River Energy Complex. Subject to the requirements contained in these Conditions of Certification (Conditions) PEF will operate one 1,080 MW (nominal) nuclear plant (Unit 3), and a 1,437 MW (nominal) facility consisting of two coal-fired units (Units 4 and 5) and ancillary equipment. These units are located on a 4,738-acre site which is located in Citrus County, Florida. UTM coordinates are: Zone 17; 334.3 km East; 3,204.5 km North. The Department recognizes that Nuclear Unit 3 and Fossil Units 4 and 5 are under the control of different divisions of PEF. Unless otherwise specified, PEF shall be responsible for the compliance with the conditions herein. The Department does not intend, solely by the March 2010 incorporation of these General Conditions, to require the retrofitting of existing certified facilities. Violation of any conditions specific to Units 3, 4, or 5 shall solely affect the license of the responsible generating units. These General Conditions shall be applicable to all areas of the certified site. Compliance with the General Conditions shall be the joint responsibility of Progress Energy Nuclear Plant (Unit 3) and Progress Energy Fossil Fuel Plant (Units 4 and 5). Any violation of a General Condition shall be a violation by Progress Energy Florida. Except where otherwise specified, existing Units 1 and 2 are not subject to this certification or these conditions.

B. The Certified Facility includes but is not limited to the following major associated facilities;

Unit 4 & 5 coal storage area, coal storage area runoff treatment ponds and coal conveyor system;

Unit 4 & 5 Ash Storage Area;

Unit 4 & 5 Industrial Wastewater (IWW) Percolation Pond

Units 1, 2, and 3 and FGD IWW disposal Pond System; and

FGD Blowdown Treatment Ponds for Units 4 and 5.

C. These Conditions, unless specifically amended or modified, are binding upon the Licensee and shall apply to the construction, operation and maintenance of the Certified Facility. If a conflict should occur between the design criteria of this Certified Facility and the Conditions, the Conditions shall prevail unless amended or modified. In any conflict between any of these Conditions, the more specific condition governs.

D. A survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the site, and an aerial photograph delineating the boundaries of the site shall be identified as the Site Delineation and attached hereto as part of Attachment A.

The Licensee shall notify the Department of any change to the Site boundary depicted in the site delineation in Attachment A. The notification shall be accompanied by an updated land survey map (or legal description) and aerial photograph delineating the new boundaries of the Site for review by the Department. Absent the above description/delineation of the Site, the Department will consider the perimeter fence line of the property on which the

SECTION A: GENERAL CONDITIONS

electrical power plant's generating facility and on-Site support facilities are located to be the boundaries of the Site.

E. If both certified and uncertified facilities lie within the boundaries of the Site, the Licensee shall also comply with the requirements of this paragraph. The Licensee shall provide to the Department in .pdf format: a survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the Certified Areas within the Site; and an aerial photograph delineating the boundaries of the Certified Areas within the Site. The boundaries of the Certified Areas within the Site shall include both the certified electrical power plant's generating facilities as defined in Section 403.503(28), F.S. and its on-Site certified associated facilities (including on-Site linear facilities) as defined by Section 403.503(7), F.S. The survey map and the aerial photograph shall be known as the Delineation of the Certified Area of the Site and attached hereto as part of Attachment A.

F. Within 120 days after completion of construction of any off-Site associated non-linear facilities, the Licensee shall provide to the Department in .pdf format; a survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the Certified Areas for each off-Site non-linear Certified Facility. The survey map(s) and aerial photographs shall be known as Delineation of the Certified Areas of the Off-Site Non-linear Facilities and attached hereto as part of Attachment A.

G. Within 180 days after completion of construction of any associated off-Site linear facilities, as defined by Section 403.503(7), F.S., the Licensee shall provide; an aerial photograph(s)/map(s) at a scale of at least 1:400, or acceptable equivalent documentation such as an official legal description or survey map(s) signed by a professional land surveyor, delineating the boundaries of the Certified Area(s), following acquisition of all necessary property interests and the corridor narrowing as described in Section 403.503(11), F.S., which shall be known as the Delineation of Off-Site Linear Facilities and attached as part of Attachment A.

Following any post-certification approvals that require a change to the boundaries of the Certified Area(s) depicted in the Delineation of Off-Site Linear Facilities in Attachment A, the Licensee shall submit an updated aerial photograph/map, survey map or legal description.

[Sections 403.511, F.S.; Rules 62-4.160(8) and 62-17.205(2), F.A.C.]

II. APPLICABLE DEPARTMENT RULES

The construction, operation and maintenance of the Certified Facility shall be in accordance with all applicable non-procedural provisions of F.S. and Florida Administrative Code (F.A.C.), including, but not limited to, the applicable non-procedural portions of the following regulations, except to the extent a variance, exception, exemption or other relief is granted in the final order of certification or in a subsequent modification to the Conditions, under any federal permit or as otherwise provided under Chapter 403:

Florida Administrative Codes:

18-2 (Management of Uplands Vested in the Board of Trustees)

18-14 (Administrative Fines for Damaging State Lands)

18-20 (Aquatic Preserves)

SECTION A: GENERAL CONDITIONS

18-21 (Sovereign Submerged Lands Management)
62-4 (Permits)
62-17 (Electrical Power Plant Siting)
62-25 (Regulation of Stormwater Discharge)
62-256 (Open Burning)
62-296 (Stationary Sources-Emission Standards)
62-297 (Stationary Sources-Emission Monitoring)
62-301 (Surface Waters of the State)
62-302 (Surface Water Quality Standards)
62-304 (Total Maximum Daily Loads)
62-312 (Dredge and Fill Activities)
62-330 (Environmental Resource Permitting)
62-340 (Delineation of the Landward Extent of Wetlands and Surface Waters)
62-341 (Noticed General Environmental Resource Permits)
62-343 (Environmental Resource Permit Procedures)
62-345 (Uniform Mitigation Assessment Method)
62-346 (Environmental Resource Permitting in Northwest)
62-520 (Groundwater Classes and Standards)
62-522 (Groundwater Permitting and Monitoring)
62-528 (Underground Injection Control)
62-531 (Water Well Contractor Licensing Requirements)
62-532 (Water Well Permitting and Construction Requirements)
62-550 (Drinking Water Standards, Monitoring and Reporting)
62-555 (Permitting, Construction, Operation, and Maintenance of Public Water Systems)
62-560 (Requirements for Public Water Systems That Are Out of Compliance)
62-600 (Domestic Wastewater Facilities)
62-601 (Domestic Wastewater Treatment Plant Monitoring)
62-604 (Collection Systems and Transmission Facilities)
62-610 (Reuse of Reclaimed Water and Land Application)
62-620 (Wastewater Facility and Activities Permitting)
62-621 (Generic Permits)
62-640 (Biosolids)
62-650 (Water Quality Based Effluent Limitations)
62-660 (Industrial Wastewater Facilities)
62-699 (Treatment Plant Classification and Staffing)
62-701 (Solid Waste Management Facilities)
62-702 (Solid Waste Combustor Ash Management)
62-710 (Used Oil Management)
62-730 (Hazardous Waste)
62-762 (Aboveground Storage Tank Systems)
62-769 (Florida Petroleum Liability and Restoration Insurance Program)
62-770 (Petroleum Contamination Site Clean-Up Criteria)
62-780 (Contaminated Site Clean-Up Criteria)
62-807 (Natural Gas Transmission Pipeline)
62-814 (Electric and Magnetic Fields)

SECTION A: GENERAL CONDITIONS

40D- 4 (Individual Environmental Resource Permits)
40D-8 (Water Levels and Rates of Flow)
40D-40 (Standard General Environmental Resource Permits)
Basis of Review for ERP Applications

III. REVISIONS TO DEPARTMENT STATUTES AND RULES

A. The Licensee shall comply with rules adopted by the Department subsequent to the issuance of the certification under the PPSA which prescribe new or stricter criteria, to the extent that the rules are applicable to electrical power plants. Except when express variances, exceptions, exemptions, or other relief have been granted, subsequently adopted Department rules which prescribe new or stricter criteria shall operate as automatic modifications to the certification.

B. Upon written notification to the Department, the Licensee may choose to operate the certified electrical power plant in compliance with any rule subsequently adopted by the Department which prescribes criteria more lenient than the criteria required by the terms and conditions in the certification which are not site-specific. .

[Section 403.511(5)(b), F.S.; Rule 62-4.160(10), F.A.C.]

IV. DEFINITIONS

The meaning of terms used herein shall be governed by the applicable definitions contained in Chapters 373 and 403, F.S., and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these Conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning. As used herein, the following shall apply:

A. “Application” means the documents required by the Department to be filed to initiate a certification review and evaluation, including the initial document filing, amendments, and responses to requests from the Department for additional data and information. For purposes of this license application shall also include materials submitted for petitions for modification to the Conditions of Certification, as well as supplemental applications.

B. “Associated Facilities” is defined by Section 403.503(7), F.S.

C. “Certified Area” means the area within the site in which the certified facilities are located. For linear facilities this term shall mean the area encompassed by the boundaries of the certified easements and/or ROWs.

D. “Certified Facility” or “Certified Facilities” means the certified electrical power generation facilities and all on- or off-site associated structures including but not limited to: steam generating units, transformers, substations, fuel and water storage tanks, air and water pollution control equipment, storm water control ponds and facilities, cooling towers, and related structures. This term shall also mean linear and associated facilities, including but not limited to: transmission lines, natural gas pipelines, and compressor stations.

E. “DCA” means the Florida Department of Community Affairs.

F. “DEM” shall mean the Florida Division of Emergency Management.

SECTION A: GENERAL CONDITIONS

- G. “DEP” or “Department” means the Florida Department of Environmental Protection.
- H. “DHR” means the Florida Department of State, Division of Historical Resources.
- I. “DOT” means the Florida Department of Transportation.
- J. “Emergency conditions” or “Emergency reporting” means urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity.
- K. “Feasible” means reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.
- L. “FWC” means the Florida Fish and Wildlife Conservation Commission.
- M. “Licensee” means an applicant that has obtained a certification order for the subject project.
- N. “NPDES permit” means a federal National Pollutant Discharge Elimination System permit issued by DEP in accordance with the federal Clean Water Act.
- O. “PSD permit” means a federal Prevention of Significant Deterioration air emissions permit issued by DEP in accordance with the federal Clean Air Act.
- P. “ARPC”, “CFRPC”, “ECFRPC”, “NCFRPC”, “NEFRPC”, “SFRPC”, “SWFRPC”, “TBRPC”, “TCRPC”, “WFRPC”, or “WRPC” means the Apalachee, Central Florida, East Central Florida, North Central Florida, Northeast Florida, South Florida, Southwest Florida, Tampa Bay, Treasure Coast, West Florida or Withlacoochee Regional Planning Council, respectively.
- Q. “ROW” means the right-of-way to be selected by the Licensee within the certified corridor in accordance with the Conditions of Certification and as defined in Section 403.503(27), F.S.
- R. “Site” means any proposed location within which will be located an electrical power plant's generating facility and onsite support facilities, or an alteration or addition of electrical generating facilities and onsite support facilities resulting in an increase in generating capacity, including offshore sites within state jurisdiction.
- S. “Surface Water Management System (SWMS)” means a stormwater management system, dam, impoundment, reservoir, appurtenant work, or works, or any combination thereof. The terms “surface water management system” or “system” include areas of dredging or filling, as those terms are defined in Sections 373.403(13) and (14), F.S.
- T. “NWF, SR, SJR, SWF, or SF WMD” means the Northwest Florida, Suwannee River, St. Johns River, Southwest Florida, or South Florida Water Management District, respectively.
- U. “Title V permit” means a federal permit issued by DEP in accordance with Title V provisions of the federal Clean Air Act.

SECTION A: GENERAL CONDITIONS

V. DEPARTMENT PERMITS UNDER FEDERAL PROGRAMS

This certification is not a waiver of any other Department approval that may be required under federally delegated or approved programs. The provisions of the following federal permits shall be conditions of this certification to the extent the provisions of those permits apply to the Certified Facility(ies). The Licensee shall comply with the applicable provisions and limitations set forth in the permits listed below, and as those provisions may be modified, amended, or renewed in the future by the Department. The Department may consider a violation of any of these permits as a violation of this license.

A. Air

All Air Construction Permits and Title V Air Operation Permits in force for the Certified parts of facility ID 0170004 are incorporated by reference herein as part of these Conditions. The Air Construction Permits and Title V Air Operation Permits can be found at this web link using the facility ID number listed above:
<http://appprod.dep.state.fl.us/air/emission/apds/default.asp>.

B. Water

1. NPDES Industrial Wastewater Discharge

Any discharges during operation shall be in accordance with all applicable provisions of the current NPDES permit FL0036366 and current NPDES permit FL0000159 (attached as Appendix III) as well as any subsequent modifications, amendments and/or renewals.

[Chapter 62-620, F.A.C.]

2. NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP)

a. Any storm water discharges associated with construction activities on the site shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. Prior to commencing construction activities on the site that:

- contribute to stormwater discharges to surface waters of the State or into a municipal separate storm sewer system (MS4); and
- disturb one or more acres of land (less than one acre if the activity is part of a larger common plan of development);

b. A Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) must be obtained as applicable.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

3. NPDES Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity.

Any storm water discharges associated with industrial activity shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. For industrial activities at the site that result in a discharge of stormwater to surface waters of the State or into a municipal separate storm sewer system (MS4), and fall under any one of the 11 categories of industrial

SECTION A: GENERAL CONDITIONS

activities identified in 40 CFR 122.26(b)(14), a Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity (MSGP) shall be obtained as applicable.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

4. NPDES Generic Permit for Discharge of Produced Ground Water from any Non-Contaminated Site Activity

Prior to discharge of produced ground water from any non-contaminated site activity which discharges by a point source to surface waters of the State, as defined in Chapter 62-620, F.A.C., the Licensee must first obtain coverage under the Generic Permit for Discharge of Produced Ground Water From any Non-Contaminated Site Activity. Similarly, if the activity involves a point source discharge of ground water from a petroleum contaminated site, the Licensee must obtain coverage under the Generic Permit for discharge from petroleum contaminated sites. Before discharge of ground water can occur from such sites, analytical tests on samples of the proposed untreated discharge water shall be performed as required by Rule 62-621.300, F.A.C., to determine if the activity can be covered by either permit.

If the activity cannot be covered by either generic permit, the Licensee shall apply for an individual wastewater permit at least ninety (90) days prior to the date discharge to surface waters of the State is expected. No discharge to surface water is permissible without an effective permit.

5. NPDES Generic Permit for Discharges from Concrete Batch Plants

Prior to discharges from concrete batch plants which meet the criteria specified in DEP Document 62-621.300(3)(a), (excluding Part III when using any new batch plants and excluding Part II when using any existing batch plants) the Licensee must first obtain coverage under the Generic Permit for Discharges from Concrete Batch Plants. This generic permit also constitutes authorization to construct and operate closed loop recycling vehicle/equipment washing facilities at concrete batch plants. New and existing concrete batch plants which do not qualify for coverage or do not choose to be covered under this generic permit shall apply for an individual wastewater 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. DEP Document number 62-621.300(3)(a) contains specific design and operating requirements for discharges from wastewater and stormwater management systems at concrete batch plants.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

VI. DESIGN AND PERFORMANCE CRITERIA

Certification, including these Conditions, is predicated upon preliminary designs, concepts, and performance criteria described in the site certification application (SCA) or in testimony and exhibits in support of certification. Final engineering design will be consistent and in substantial compliance with the preliminary information described in the SCA or as explained at the certification hearing (if any). Conformance to those criteria, unless specifically modified in accordance with Sections 403.516, 403.5315, 403.9418, F.S., and Rule 62-17.211, F.A.C., is binding upon the Licensee in the design, construction, operation and maintenance of the Certified Facility.

[Section 403.516, F.S.; Rule 62-17.211, F.A.C.]

SECTION A: GENERAL CONDITIONS

VII. NOTIFICATION

A. If, for any reason, the Licensee does not comply with or will be unable to comply with any condition or limitation specified in this license, the Licensee shall immediately provide the appropriate DEP District Office with the following information:

1. A description of and cause of noncompliance; and
2. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The Licensee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this certification.

All notifications which are made in writing shall additionally be immediately provided to the Siting Coordination Office (SCO) via email to SCO@dep.state.fl.us.

[Rule 62-4.160(8), F.A.C.]

B. The Licensee shall promptly notify the SCO in writing of any previously submitted information concerning the Certified Facility that is later discovered to be inaccurate.

[Rule 62-4.160(15), F.A.C.]

C. Unless specified otherwise in this license, all reports and notifications required by the Groundwater Monitoring, Operation and Monitoring Requirements (GWMOMR) (Attachment H), including 24-hour notifications, shall be submitted to or reported to the Southwest District Office at the address specified below:

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926
Phone Number- (813) 632-7600
FAX Number- (813) 632-7662

[Section 403.5112, F.S.]

VIII. REPLACEMENT FOR RESTORATION OF SYSTEM INTEGRITY

A. Replacement of all or a portion of a transmission line(s) or natural gas pipeline certified under the TLSA or the NGPSA that is necessary to restore system integrity following an emergency as defined by Sections 252.34(6), (7) or (9), F.S., and requiring deviation from any condition of certification shall not be considered a modification pursuant to Section 403.5315, F.S. A verbal report of the emergency replacement for restoration of system integrity shall be made to the Department as soon as possible. Within 30 days after correction of the emergency condition requiring a replacement for system integrity, a report to the Department shall be made outlining the details of the emergency condition requiring the replacement and the steps taken for its relief. The report shall be a written description of all of the work performed and shall set forth any pollution control measures or mitigative measures which were utilized or are being utilized to prevent pollution of waters, harm to sensitive areas or alteration of archaeological or historical resources.

B. The Department will use its enforcement discretion when evaluating violations that result from operating the Certified Facility under emergency conditions. During and after

SECTION A: GENERAL CONDITIONS

the emergency conditions, the Licensee must use due diligence to bring the facility back into compliance as soon as possible. In addition, the Licensee must use its best efforts and best management practices to minimize adverse environmental impacts. The Licensee shall notify the SCO and the appropriate DEP District Office when the emergency condition has ended. Furthermore, the Licensee must include all monitoring data, which would otherwise be required under normal operating circumstances, recorded during emergency conditions when submitting reports as required by these conditions. Any exceedances and/or violations recorded during emergency conditions shall be reported as such, but the Department acknowledges that it intends to use its enforcement discretion during this timeframe. This acknowledgement by the Department does not constitute a waiver or variance from any requirements of any federal permit. Relief from any federal agency must be separately sought.

[Sections 403.511, F.S.]

IX. CONSTRUCTION PRACTICES

A. Local Building Codes

This license shall not affect in any way the right of any local government to charge appropriate fees or require that construction be in compliance with applicable building construction codes.

[Section 403.511(4), F.S.]

B. Open Burning.

Prior to open burning in connection with land clearing, the Licensee shall seek authorization from the Florida Forest Service in accordance with the requirements of Chapters 62-256 and 5I-2, F.A.C. the Florida Forestry Service

[Chapters 5I-2 and 62-256, F.A.C.]

C. Flood Control Protection

The certified facilities shall be constructed in a manner that complies with any applicable non-procedural County flood protection requirements. However, existing facilities are not required to be modified to comply with such flood control protection standards.

D. Underground Utilities

The Licensee must follow all applicable portions of the Underground Facility Damage Prevention and Safety Act, Chapter 556, F.S. The Licensee shall provide the affected local government and the Siting Office with copies of valid tickets obtained from Sunshine State One Call of Florida upon request. Tickets shall be available for request until the underground work is complete for the affected area.

[Chapter 556, F.S.]

E. Electric and Magnetic Fields (EMF).

Any transmission lines that are associated facilities shall comply with the applicable requirements of Chapter 62-814, F.A.C.

[Chapter 62-814, F.A.C.]

SECTION A: GENERAL CONDITIONS

F. Existing Wells

Any existing wells to be impacted in the path of construction that will no longer be used shall be abandoned by a licensed well contractor. All abandoned wells shall be filled and sealed in accordance with subsection 62-532.500(5), F.A.C., or with the rules of the authorizing agency, or consistent with these Conditions.

[Rules 62-532.400 and 62-532.500(5), F.A.C.]

X. RIGHT OF ENTRY

A. Upon presentation of credentials or other documents as may be required by law, the Licensee shall allow authorized representatives of the Department or other agencies with jurisdiction over a portion of the Certified Facility:

1. At reasonable times, to enter upon the Certified Facility in order to monitor activities within their respective jurisdictions for purposes of assessing compliance with this certification; or

2. During business hours, to enter the Licensee's premises in which records are required to be kept under this certification; and to have access to and copy any records required to be kept under this certification.

B. When requested by the Department, on its own behalf or on behalf of another agency with regulatory jurisdiction, the Licensee shall within 10 working days, or such longer period as may be mutually agreed upon by the Department and the Licensee, furnish any information required by law, which is needed to determine compliance with the certification. If the Licensee becomes aware that relevant facts were not submitted or were incorrect in the SCA or in any report to the Department or other agencies, such facts or information shall be promptly corrected and submitted.

[Rules 62-4.160(7)(a) and 62-4.160(15), F.A.C.]

XI. DISPUTE RESOLUTION

If a situation arises in which mutual agreement cannot be reached between the Licensee, the Department and another agency receiving a post-certification submittal or between the Department and the Licensee regarding compliance with the Conditions, then the matter shall be immediately referred to the Division of Administrative Hearings (DOAH) for disposition in accordance with the provisions of Chapter 120, F.S. The Licensee or the Department may request DOAH to establish an expedited schedule for the processing of such a dispute.

[Section 120.57, F.S.]

XII. SEVERABILITY

The provisions of this certification are severable, and if any provision of this certification or the application of any provision of this certification to any circumstance is held invalid, the remainder of the certification or the application of such provision to other circumstances shall not be affected thereby.

XIII. ENFORCEMENT

A. The terms, conditions, requirements, limitations and restrictions set forth in these Conditions are binding and enforceable pursuant to Sections 403.141, 403.161, 403.514,

SECTION A: GENERAL CONDITIONS

403.727, and 403.859 through 403.861, F.S., as applicable. Any noncompliance by the Licensee with these Conditions constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, license termination, license revocation, or license revision. The Licensee is placed on notice that the Department may review this certification periodically and may initiate enforcement action for any violation of these Conditions. Abandonment of the Certified Facility will be considered grounds for enforcement action.

B. All records, notes, monitoring data and other information relating to the construction or operation of the Certified Facility which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the Certified Facility and arising under the Florida Statutes or Department rules, subject to the restrictions in Sections 403.111 and 403.73, F.S. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

[Sections 403.121, 403.131, 403.141, 403.151, 403.161, and 403.514, F.S.; Rules 62-4.160(1) and 62-4.160(9), F.A.C.]

XIV. REVOCATION OR SUSPENSION

The certification shall be final unless revised, revoked or suspended pursuant to law. This certification may be suspended or revoked pursuant to Sections 403.512, F.S. This license is valid only for the specific processes and operations identified in the Application and approved in the final order of certification and indicated in the testimony and exhibits in support of certification. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this approval may constitute grounds for revocation and enforcement action by the Department. Any enforcement action, including suspension and revocation, shall only affect the portion(s) of the Certified Facility that are the cause of such action, and other portions of the Certified Facility shall remain unaffected by such action.

[Sections 403.512, F.S.; Rule 62-4.160(2), F.A.C.]

XV. REGULATORY COMPLIANCE

As provided in Sections 403.087(7) and 403.722(5), F.S., the issuance of this license 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 any infringement of federal, state, or local laws or regulations. This license is not a waiver of or approval of any other Department license/permit that may be required for other aspects of the Certified Facility which are not addressed in this license. This license does not relieve the Licensee from liability for harm or injury to human health or welfare, animal, or plant life, or public or private property caused by the construction or operation of this Certified Facility, or from penalties therefore.

[Rules 62-4.160(3) and 62-4.160(5), F.A.C.]

XVI. CIVIL AND CRIMINAL LIABILITY

This certification does not relieve the Licensee from civil or criminal penalties for noncompliance with any conditions of this certification, applicable rules or regulations of the Department, or any other state statutes or regulations which may apply.

[Sections 403.141, 403.161, 403.511, F.S.]

SECTION A: GENERAL CONDITIONS

XVII. USE OF STATE LANDS

A. The issuance of this license 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 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.

B. If any portion of the Certified Facility is located on sovereign submerged lands, state-owned uplands, or within an aquatic preserve, then the Certified Facility must comply with the applicable portions of Chapters 18-2, 18-20, and 18-21, F.A.C., and Chapters 253 and 258, F.S. If any portion of the Certified Facility is located on sovereign submerged lands, the Licensee must submit section G of the Joint Application for Environmental Resource Permits to the Department prior to construction. If any portion of the Certified Facility is located on state-owned uplands, the Licensee must submit an Upland Easement Application to the Department prior to construction.

C. If a portion of the Certified Facility is located on sovereign submerged lands or state-owned uplands owned by the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, then the proposed activity on such lands requires a proprietary authorization. Under such circumstances, the proposed activity is not exempt from the need to obtain a proprietary authorization. The Department has the responsibility to review and take action on requests for proprietary authorization in accordance with Rules 18-2.018 or 18-21.0051, F.A.C.

D. The Licensee is hereby advised that Florida law states: “No person shall commence any excavation, construction, or other activity involving the use of sovereign or other state lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, F.S., until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use.” Pursuant to Chapter 18-14, F.A.C., if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense.

E. The terms, conditions, and provisions of any required lease or easement issued by the State shall be met. Any construction activity associated with the Certified Facility shall not commence on sovereign submerged lands or state owned uplands, title to which is held by the Board of Trustees of the Internal Improvement Trust Fund, until all required lease or easement documents have been executed.

[Chapters 253 and 258, and Sections 403.511, F.S.; Chapter 3.1.1. of the B.O.R.; Chapters 18-2, 18-14, 18-21, 62-340, and subsections 62-343.900(1) and 62-4.160(4), F.A.C.; Upland Easement Application and Section G of the Environmental Resource Permit Application Form.]

XVIII. PROCEDURAL RIGHTS

Except as specified in Chapter 403, F.S., or Chapter 62-17, F.A.C., no term or condition of certification shall be interpreted to preclude the post-certification exercise by any party of whatever procedural rights it may have under Chapter 120, F.S., including those related to rule-making proceedings.

SECTION A: GENERAL CONDITIONS

[Sections 403.511(5)(c), F.S.]

XIX. AGENCY ADDRESSES FOR POST-CERTIFICATION SUBMITTALS AND NOTICES

Where a condition requires post-certification submittals and/or notices to be sent to a specific agency, the following agency addresses shall be used unless the Conditions specify otherwise or unless the Licensee and the Department are notified in writing of an agency's change in address for such submittals and notices:

Florida Department of Environmental Protection
Siting Coordination Office, MS 48
3900 Commonwealth Blvd.
Tallahassee, FL 32399-3900

Florida Department of Environmental Protection
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, FL 33637

Florida Department of Community Affairs
Office of the Secretary
2555 Shumard Oak Blvd.
Tallahassee, FL 32399-2100

Florida Fish & Wildlife Conservation Commission
Office of Policy and Stakeholder Coordination
620 South Meridian Street
Tallahassee, FL 32399-1600

Florida Department of Transportation
District Administration
605 Suwannee Street
Tallahassee, Florida 32399-0450

Florida Department of Agriculture and Consumer Services
Division of Forestry
3125 Conner Boulevard
Tallahassee, Florida 32399-1650

Withlacoochee Regional Planning Council
Office of the Executive Director
1241 S.W. 10th Street
Ocala, FL 34474-2798

Southwest Florida Water Management District
Office of General Counsel
2379 Broad Street

SECTION A: GENERAL CONDITIONS

Brooksville, FL 34064-6899

Florida Department of State
Division of Historical Resources
500 S. Bronough Street
Tallahassee, FL 32399-0250

Citrus County
3600 W. Sovereign Path, Suite 140
Lecanto, Florida 34461

[Sections 403.511, 403.531, and 403.9416, F.S.]

XX. PROCEDURES FOR POST-CERTIFICATION SUBMITTALS

A. Purpose of Submittals

Conditions which provide for the post-certification submittal of information to DEP or other agencies by the Licensee are for the purpose of facilitating the agencies' monitoring of the effects arising from the location of the Certified Facility and the construction and maintenance of the Certified Facility. This monitoring is for DEP to assure, in consultation with other agencies with applicable regulatory jurisdiction, continued compliance with these Conditions, without further agency action.

B. Filings

All post-certification submittals of information by Licensee are to be filed with the SCO, the DEP District Office(s), and any other agency that is entitled to receive a submittal pursuant to these Conditions. All filings with the SCO shall be submitted in electronic .pdf format only, unless otherwise requested. Each submittal shall clearly identify the Certified Facility name, PA#, and the condition number/s (i.e. Section X, Condition XX.y.(z)) requiring the submittal. As required by Section 403.5113(2), F.S., each post-certification submittal will be reviewed by each agency with regulatory authority over the matters addressed in the submittal on an expedited and priority basis.

[Section 403.5113, F.S., Rule 62-17.191(3), F.A.C.]

C. Completeness

DEP shall review each post-certification submittal for completeness. This review may include consultation with the other agency/ies receiving the post-certification submittal with regulatory jurisdiction over the matter addressed in the submittal. DEP's finding of completeness shall specify the area of the Certified Facility affected, and shall not delay further processing of the post-certification submittal for non-affected areas. If any portion of a post-certification submittal is found to be incomplete, the Licensee shall be so notified. Failure to issue such a notice within 30 days after filing of the submittal shall constitute a finding of completeness. Subsequent findings of incompleteness, if any, shall address only the newly filed information.

[Rule 62-17.191(1)(c) 2, F.A.C.]

SECTION A: GENERAL CONDITIONS

D. Interagency Meetings

DEP may conduct an interagency meeting with other agencies that received a post-certification submittal. The purpose of such an interagency meeting shall be for the agencies with regulatory jurisdiction over the matters addressed in the post-certification submittal to discuss whether compliance with these Conditions has been provided. Failure of DEP to conduct an interagency meeting or failure of any agency to attend an interagency meeting shall not be grounds for DEP to withhold a determination of compliance with these Conditions nor to delay the timeframes for review established by these Conditions. At DEP's request, the Licensee shall conduct a field inspection with the agency representative in conjunction with the interagency meeting.

E. Determination of Compliance

DEP shall give written notification within 90 days, to the Licensee and the other agency/ies to which the post-certification information was submitted of DEP's determination of whether there is demonstration of compliance with these Conditions. If it is determined that compliance with the Conditions has not been provided, the Licensee shall be notified with particularity of the deficiencies and possible corrective measures suggested. Failure to notify Licensee in writing within 90 days of receipt of a complete post-certification submittal shall constitute a determination of compliance. A post-certification compliance review may be the basis for initiating modifications to the relevant condition or to other related conditions.

F. Commencement of Construction

If DEP does not object within the time period specified in paragraph E. above, Licensee may begin construction pursuant to the terms of these Conditions and the subsequently submitted construction details.

G. Revisions to Design Previously Reviewed for Compliance

If revisions to site-specific designs occur after submittal, the Licensee shall submit revised plans prior to construction for review.

H. Variation to Submittal Requirements

DEP, in consultation with the appropriate agencies that have regulatory authority over a matter to be addressed in a post-certification submittal, and Licensee may jointly agree to vary any of the post-certification submittal requirements, provided the information submitted is sufficient to provide reasonable assurances of compliance with these Conditions.

[Sections 120.569, 373.413, 373.416, 403.511, F.S.; Rules 62-17.191 and 62-17.205, F.A.C.]

XXI. POST-CERTIFICATION SUBMITTAL REQUIREMENTS SUMMARY

Within 90 days after certification, and within 90 days after any subsequent modification or certification, the Licensee shall provide the Department a complete summary of those post-certification submittals that are identified in these Conditions when due-dates for the information required of the Licensee have been identified. A summary shall be provided as a separate document for each transmission line, if any. Such submittals shall include, but are not limited to, monitoring reports, management plans, wildlife surveys, etc. The summary shall be provided to the SCO, in a sortable spreadsheet, via email, in the format identified below or equivalent. For subsequent modifications and certifications, a Post-Certification Submittal

SECTION A: GENERAL CONDITIONS

Requirements Summary shall be required for only those resulting in new or altered post-certification requirements.

Condition Number	Requirement and Timeframe	Due Date	Name of Agency or Agency Subunit to whom the submittal is required to be provided

[Section 403.5113, F.S.; Rule 62-17.191(3), F.A.C.]

XXII. POST CERTIFICATION AMENDMENTS

If, subsequent to certification, the Licensee proposes any material change to the SCA and revisions or amendments thereto, as certified, the Licensee shall submit a written request for amendment and a description of the proposed change to the SCA to the Department. Within 30 days after the receipt of a complete request for an amendment, the Department shall determine whether the proposed change to the application requires a modification to the Conditions.

A. If the Department concludes that the change would not require a modification to the Conditions, the Department shall provide written notification of the approval of the proposed amendment to the Licensee, all agencies, and all other parties to the Certification.

B. If the Department concludes that the change would require a modification to the Conditions, the Department shall provide written notification to the Licensee that the proposed change to the SCA requires a request for modification pursuant to Sections 403.516, F.S.

[Section 403.5113, F.S.]

XXIII. MODIFICATION OF CERTIFICATION

A. Pursuant to Sections 403.516(1)(a), 120.569(2)(n), F.S., and Rule 62-17.211, F.A.C., the Siting Board hereby delegates the authority to the Department to modify, after notice and receipt of no objection by a party or other substantially affected person, any condition of certification which would not otherwise require approval by the Siting Board. In addition, the Department is delegated the authority to modify conditions as follows:

The certification shall be modified to conform to subsequent DEP-issued amendments, modifications, or renewals of any separately issued Prevention of Significant Deterioration (PSD) permit, Title V Air Operation permit, Underground Injection Control (UIC) permit, or National Pollutant Discharge Elimination System (NPDES) permit for the Certified Facility. In the event of a conflict, the more stringent of the conditions of such permits or of these Conditions shall be controlling.

SECTION A: GENERAL CONDITIONS

B. Any anticipated facility expansions, production increases, or process modifications which may result in new, different or increased discharge or emission of pollutants, change in fuel, or expansion in generating capacity must be reported by submission of an appropriate request for an amendment, modification, or certification.

C. Any anticipated facility change that results in a change to the site delineation or the delineation of the Certified Area, attached hereto as part of Attachment A, must be accompanied by a map or aerial photo showing the proposed new boundaries of the Site and/or Certified Area. The Department may consider any such change to be a modification to the Conditions. Within 60 days after completion of construction of the approved facility change, the Licensee shall provide the information required by Section A. General Conditions, Condition I. Scope, paragraphs D, E, or F as appropriate.

D. The Licensee may file a petition for modification with the Department, or the Department may initiate the modification upon its own initiative.

[Sections 120.569(2)(n), 403.511(5)(a), 403.516, F.S.; Rule 62-17.211 and Chapter 62-343, F.A.C.]

XXIV. INCORPORATION OF EXISTING STATE AND LOCAL PERMITS/LICENSES

The operation of the Certified Facility shall be in accordance with all applicable provisions of any state or local government regulation. All state and locally issued permits are intended to be incorporated herein, such that the Licensee shall comply with the substantive provisions and limitations set forth in those permits. The inadvertent omission of any state or locally issued permit/approval from these Conditions can be remedied by a modification of the Conditions to include provisions from the state or locally issued permit/approval.

At any time following certification, should the Licensee become aware of any state or locally issued permit/approval not included herein, the Licensee shall promptly notify the SCO for incorporation into these Conditions. Likewise, when the Department is made aware of any separately issued permits/approvals that were inadvertently not included in the Conditions, the Conditions will be modified to incorporate the substantive provisions and limitations of any such permit/approval.

XXV. COASTAL ZONE CONSISTENCY

Pursuant to Sections 373.428 and 403.511, F.S., certification of the facility constitutes the State's concurrence that the licensed activity or use is consistent with the federally approved program under the Florida Coastal Management Act.

[Sections 373.428, 380.23 and 403.511(7), F.S.]

XXVI. FINANCIAL RESPONSIBILITY

The Department may require the Licensee to submit proof of financial responsibility and may require the Licensee to post an appropriate bond in those instances where the Department is authorized to require proof of financial responsibility or a bond pursuant to a law or Department rule that is applicable to the Certified Facility.

[Rule 62-4.110, F.A.C.]

XXVII. TRANSFER OF CERTIFICATION

A. This certification is transferable in whole or in part, upon Department approval, to an entity determined to be able to comply with these Conditions. A transfer of certification of all or part of the Certified Facility may be initiated by the Licensee's filing of a Notice of Intent to Transfer Certification with the Department. The notice of intent shall identify the intended new certification holder or Licensee and the identity of the entity responsible for compliance with the certification. Upon the filing with the Department of a written agreement from the intended Licensee/Transferee to abide by all Conditions of Certification and applicable laws and regulations, the transfer shall be approved unless the Department objects to the transfer on the grounds of the inability of the new Licensee to comply with the Conditions of Certification, specifies in writing its reasons therefore, and gives notice and opportunity to petition for a Section 120.57, F.S., administrative hearing. Upon approval, the Department will initiate a modification to the Conditions to reflect the change in ownership in accordance with Rule 62-17.211, F.A.C.

B. In the event of the dissolution of a certified Licensee, the Department may transfer certification to successor entities which are determined to be competent to construct, operate and maintain the Certified Facility in accordance with the conditions of certification and which are proper applicants as defined by the PPSA, TLISA and/or NGPSA. Upon determination that such a successor entity complies with the above, the Department will initiate a modification to the Conditions to reflect the change in ownership in accordance with Rule 62-17.211, F.A.C.

[Rule 62-17.211, F.A.C.]

XXVIII. LABORATORIES AND QUALITY ASSURANCE

Chemical, physical, biological, microbiological and toxicological data collected as a requirement of these Conditions must be reliable, and collected and analyzed by scientifically sound procedures. Unless otherwise specified in these Conditions, the Licensee shall adhere to the minimum field and laboratory quality assurance, methodological and reporting requirements of the Department as set forth in Chapter 62-160, F.A.C. Standard Operating Procedures can be downloaded from the following website: <http://www.dep.state.fl.us/labs/qa/sops.htm>.

[Rule 62-160, F.A.C.]

XXIX. ENVIRONMENTAL RESOURCES

A. General

Except as provided in Section B. Facility-Wide Specific Conditions, Part C, the following requirements apply to Environmental Resources:

1. Submittals for Construction Activities

a. Unless such information has already been provided to DEP as part of the Application or during the certification proceedings, post certification submittals, or as otherwise authorized in these conditions, prior to the commencement of construction of new facilities and/or associated facilities the Licensee shall provide to the appropriate DEP District's Environmental Resource Permitting Section(s) for review, all information necessary for a complete *Joint Application for Environmental Resource Permit (ERP)*, DEP Forms 62-343.900(1), or 62-346.900(1) and 62-312.900(1), as applicable.

SECTION A: GENERAL CONDITIONS

This form may: a) have been submitted concurrently with a SCA; b) be submitted as an amendment request or a petition for modification; or c) be submitted as a post-certification submittal following approval of a project through certification, modification or amendment. Such ERP applications, once received, shall be reviewed in accordance with the non-procedural standards and criteria for issuance of an ERP, including all the provisions related to reduction and elimination of impacts, conditions for issuance, additional conditions for issuance, and mitigation contained in Chapters 62-330, 62-341 and 62-343, , F.A.C., as applicable unless otherwise stated in these Conditions.

Those forms submitted as part of a site certification, an amendment, or modification, shall be processed concurrently with, and under the respective certification, amendment, or modification procedures. Those forms submitted as a post-certification submittal (after project approval and prior to construction) shall be processed in accordance with Section A. Condition XX. Procedures for Post-Certification Submittals.

No construction shall commence on a project feature until the appropriate notification from the Department has been received, or in the case of post-certification submittals the time period for notification by the Department has expired.

b. The Licensee shall submit a survey of wetland and surface water areas as delineated in accordance with Chapter 62-340, F.A.C., and verified by appropriate agency staff for Department approval.

[Chapter 62-340, F.A.C.]

[Section 373.416, F.S.; subsections 62-312, 62-343.070(2) and 62-346.070(2), paragraph 62-343.090(2)(b), and Forms 62-343.900(1) and 62-346.900(1), F.A.C.]

2 Construction, operation and maintenance of the proposed project (including any access roads and structures constructed within wetlands and other surface waters, and/or associated facilities) shall satisfy any applicable non-procedural requirements in the Department rules.

[Section 373.414, F.S.; Rule 62-17.665(7)(d), F.A.C.]

3. Any delineation of the extent of a wetland or other surface water submitted as part of the DEP ERP Application Form required by Condition A.1.a. above, including plans or other supporting documentation, shall not be considered binding on the Department unless a specific condition of this license or a formal wetlands jurisdictional determination under Section 373.421(2), F.S., provides otherwise.

[Sections 373.421, 403.504, F.S.]

B. Surface Water Management

1. New or modified Surface water management systems will be evaluated under Part IV of Chapter 373, F.A.C. following submittal of Form 62-343.900(1), as applicable, to the appropriate office of the Department.

2. All construction, operation, and maintenance of a new or modified surface water management system(s) for the Certified Facilities shall be as set forth in the plans, specifications and performance criteria contained in the ERP Application form and the surface water management system operation/management plans approved by the Department. The Department

SECTION A: GENERAL CONDITIONS

approved surface water management system operation/management plans shall be incorporated herein as Attachment E, as well as any subsequent alterations, amendments, and/or modifications thereto. Any subsequent alterations, amendments, or modification to the approved surface water management system and/or operation/management plans shall require prior approval from the Department.

3. To allow for stabilization of all disturbed areas, immediately prior to construction, during construction, and for the period of time after construction, the Licensee shall implement and maintain erosion and sediment control best management practices, such as silt fences, erosion control blankets, mulch, sediment traps, polyacrylamide (PAM), temporary grass seed, permanent sod, and floating turbidity screens to retain sediment on-site and to prevent violations of state water quality standards. These devices shall be installed, used, and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the licensed work, and shall remain in place at all locations until construction is completed and soils are permanently stabilized. All best management practices shall be in accordance with the guidelines and specifications described in *the State of Florida Erosion and Sediment Control Designer and Reviewer Manual* (Florida Department of Transportation and Florida Department of Environmental Protection, 2007) unless a project-specific erosion and sediment control plan is approved as part of this License. If project-specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediments beyond those specified in the approved erosion and sediment control plan, the Licensee shall implement additional best management practices as necessary, in accordance with the guidelines and specifications in *the State of Florida Erosion and Sediment Control Designer and Reviewer Manual* (Florida Department of Transportation and Florida Department of Environmental Protection by HydroDynamics Incorporated in cooperation with Stormwater Management Academy, June 2007). The Licensee shall correct any erosion or shoaling that causes adverse impacts to the water resources as soon as feasible. Once project construction has been deemed complete, including the re-stabilization of all side slopes, embankments and other disturbed areas, and before conversion from the operation and maintenance phase, all silt screens and fences, temporary baffles, and other materials that are no longer required for erosion and sediment control shall be removed.

4. The Licensee shall complete construction of all aspects of the surface water management system described in the DEP ERP Application Form, as part of a post certification submittal, amendment, or modification, including water quality treatment features, and discharge control facilities prior to use of the portion of the Certified Facility being served by the surface water management system.

5. At least 48 hours prior to the commencement of construction of any new surface water management system authorized by this license, the Licensee shall submit to the Department a written notification of commencement using an "Environmental Resource Permit Construction Commencement Notice" (DEP Form 62-343.900(3), F.A.C, as applicable), indicating the actual start date and the expected completion date. When the duration of construction will exceed one year, the Licensee shall submit construction status reports to the Department on an annual basis utilizing an "Annual Status Report Form" (DEP Form No. 62-343.900(4), F.A.C.). Status Report Forms shall be submitted the following June of each year.

SECTION A: GENERAL CONDITIONS

6. Each phase or independent portion of the approved system must be completed in accordance with the submitted DEP Form prior to the operation of site infrastructure located within the area served by that portion or phase of the system.

7. Within 30 days after completion of construction of any new portions of the surface water management system, the Licensee shall submit to the SCO and DEP District Office a written statement of completion and certification by a registered professional engineer (P.E.), or other appropriate registered professional, as authorized by law, utilizing the required “As-Built Certification by a Registered Professional” (DEP Form 62-343.900(5), F.A.C., as applicable). Additionally, if deviations from the approved drawings are discovered, the As-Built Certification must be accompanied by a copy of the approved drawings with deviations noted.

8. Any substantial deviation from the approved drawings, exhibits, specifications or Conditions, may constitute grounds for revocation or enforcement action by the Department. Examples of substantial deviations may include excavation of ponds, ditches or sump areas deeper than shown on the approved plans.

9. Prior to the operation of any new surface water management system, the Licensee shall submit to the Department a “Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase” (DEP Form 62-343.900(7), F.A.C.). The operation phase of any new surface water management system approved by the Department shall not become effective until the Licensee has complied with the requirements of the conditions herein, the Department determines the system to be in compliance with the approved plans, and the entity approved by the Department accepts responsibility for operation and maintenance of the system.

10. The DEP District ERP Section must be notified in advance of any proposed construction dewatering. If the dewatering activity is likely to result in offsite discharge or sediment transport into wetlands or surface waters, a written dewatering plan must be submitted to and approved by the Department prior to the dewatering event. Additional authorizations may be required for certain dewatering discharges. Refer to Section A, Condition V. Department Permits Under Federal Programs, B. Water.

[Chapters 62-25, 62-302, 62-330, 62-343 62-346, and Rule 62-4.242, F.A.C.]

C. Wetland and Other Surface Water Impacts

1. All certified facilities shall be constructed in a manner which will avoid or minimize adverse impacts to on-site and/or adjacent wetlands or other surface waters to the extent feasible. When unavoidable impacts to wetlands will occur, an applicant may propose and the Department shall consider mitigation to offset otherwise unpermissible activities under the Environmental Resource Permit review process pursuant to Condition A.1.a above.

2. Proposed mitigation plans submitted with the DEP ERP Application forms required in Condition A.1.a. above, or submitted and approved as part of an amendment, modification, or certification, and that are deemed acceptable by DEP, shall include applicable construction conditions, success criteria and monitoring plans, and shall be incorporated into these Conditions as applicable.

[Sections 373.413, 373.414, 373.4145, 403.511, and 403.814(6), F.S.; Chapters 62-330, 62-341 62-342, 62-343, 62-345, and 62-346, F.A.C.]

SECTION A: GENERAL CONDITIONS

XXX. THIRD PARTY IMPACTS

The Licensee is responsible for maintaining compliance with these Conditions even when third party activities authorized by the Licensee occur in or on the Certified Area. Such third party activities authorized by the Licensee may include but are not limited to mining, hunting, and timbering.

[Sections 403.506(1), F.S.]

XXXI. FACILITY OPERATION

The Licensee shall properly operate and maintain the Certified Facility and systems of treatment and control (and related appurtenances) that are installed and used by the Licensee to achieve compliance with these Conditions, as required by the final order of certification, these Conditions, or a post-certification amendment or modification. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the final order of certification, these Conditions, or a post-certification amendment or modification. Further, the Licensee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying event.

[Rule 62-4.160(6), F.A.C.]

XXXII. RECORDS MAINTAINED AT THE FACILITY

A. These Conditions or a copy thereof shall be kept at the Site.

B. Upon request, the Licensee shall furnish all records and plans required under Department rules.

C. The Licensee shall hold at the Site, or other location designated by these Conditions, records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation required by these Conditions, copies of all reports required by these Conditions, and records of all data used to complete the SCA for this approval. These materials shall be retained at least three (3) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

D. Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used; and,
6. the results of such analyses.

[Rules 62-4.160(12) and 62-4.160(14)(b), F.A.C.]

XXXIII. WATER DISCHARGES

A. Discharges

1. The Licensee shall not discharge to surface waters wastes which are acutely toxic, or present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant locally occurring wildlife or aquatic species. The Licensee shall not discharge to ground waters wastes in concentrations which, alone or in combination with other substances, or components of discharges (whether thermal or non-thermal) are carcinogenic, mutagenic, teratogenic, or toxic to human beings (unless specific criteria are established for such components in Rule 62-520.400, F.A.C.) or are acutely toxic to indigenous species of significance to the aquatic community within surface waters affected by the ground water at the point of contact with surface waters.

2. All discharges and activities must be conducted so as to not cause a violation of the water quality standards set forth in Chapters 62-4, 62-302, 62-520, and 62-550, 62-620, F.A.C., including the provisions of Rules 62-4.243, 62-4.244, and 62-4.246, F.A.C., the antidegradation provisions of paragraphs 62-4.242(1)(a) and (b), F.A.C., subsections 62-4.242(2) and (3), F.A.C., and Rule 62-302.300, F.A.C., and any special standards for Outstanding Florida Waters and Outstanding National Resource Waters set forth in subsections 62-4.242(2) and (3), F.A.C.;

3. All dewatering discharges must be in compliance with Rule 62-621.300, F.A.C.

[Chapters 62-4, 62-302, 62-520, 62-550, and 62-620, F.A.C., and Rule 62-621.300, F.A.C.]

4. All wastewater discharges shall comply with the applicable non-procedural general conditions as set forth in Chapter 62-620.610 (1-23) F.A.C.

XXXIV. SOLID AND HAZARDOUS WASTE

A. Solid Waste

The Licensee shall comply with all applicable provisions of Chapters 62-701 and 62-702, F.A.C., for any solid waste generated within the Certified Facility during construction and/or operation.

[Chapters 62-701 and 62-702, F.A.C.]

B. Hazardous Waste and Used Oil

The Licensee shall comply with all applicable non-procedural provisions of DEP Chapter 62-730, F.A.C., for any hazardous waste generated within the Certified Facility. An EPA identification number must be obtained before beginning hazardous waste activities, unless the facility is a Conditionally Exempt Small Quantity Generators (CESQGs). CESQGs generate no more than 100 kg (220 lbs) of hazardous waste in any month.

The Licensee shall comply with all applicable provisions of DEP Chapter 62-710, F.A.C., for any used oil and used oil filters generated within the Certified Facility.

SECTION A: GENERAL CONDITIONS

The Licensee shall comply with all applicable provisions of DEP Chapter 62-737, F.A.C., for any spent mercury-containing lamps and devices generated within the Certified Facility.

[Chapters 62-710, 62-730 and 62-737, F.A.C.]

C. Hazardous Substance Release Notification

1. Any owner or operator of a facility who has knowledge of any release of a hazardous substance from a facility in a quantity equal to or exceeding the reportable quantity in any 24-hour period shall notify the Department by calling the STATE WARNING POINT NUMBER, (800) 320-0519, as soon as possible, but not later than one working day of discovery of the release.

2. Releases of mixtures and solutions are subject to these notification requirements only where a component hazardous substance of the mixture or solution is released in a quantity equal to or greater than its reportable quantity.

3. Notification of the release of a reportable quantity of solid particles of antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, or zinc is not required if the mean diameter of the particles released is larger than 100 micrometers (0.004 inches).

[Chapter 62-150, F.A.C.]

D. Contaminated Site Cleanup

The Licensee shall comply with all applicable provisions of DEP Chapter 62-780, F.A.C., that result in legal responsibility for site rehabilitation pursuant to the requirements of Chapter 62-780 F.A.C.. This Chapter may not be used to establish whether the facility is legally responsible for conducting site rehabilitation. Legal responsibility shall be determined by application of relevant provisions of Chapter 376 and 403, F.S. The responsibility for site rehabilitation does not affect any activity or discharge permitted or exempted pursuant to Chapter 376 or 403, F.S., or rules promulgated pursuant to Chapter 376 or 403, F.S.

De minimis discharges shall be addressed in an interim source removal and shall be subject to the requirements of Rule 62-780.500, F.A.C., except for the notification and reporting requirements of that section. De minimis discharges also shall be exempt from the notification requirements of subsection 62-780.220(1), F.A.C. The facility shall maintain records of the actions that were taken in response to the discharge including the information required pursuant to paragraph 62-780.500(7)(a), F.A.C., for five years from the date of the discharge. The records shall be made available to the Department upon request.

De minimis discharge means a discharge that is removed from the soil, sediment, surface water, and groundwater to CTLs or background concentrations pursuant to subsection 62-780.680(1), F.A.C. within a period of 30 days from the discovery of the discharge.

Discharge includes, but is not limited to, any spilling, leaking, seeping, misapplying, pouring, emitting, emptying, releasing, or dumping of any pollutant or hazardous substance which occurs and which affects lands and the surface waters and groundwaters of the state not regulated by Sections 376.011-.21, F.S.

[Chapter 62-780, F.A.C.]

XXXV. STORAGE TANK SYSTEMS

The Licensee shall comply with all applicable provisions of DEP Chapter 62-761 F.A.C. for regulated underground storage tanks and Chapter 62-762, F.A.C. for regulated aboveground storage tanks. Registration, construction, installation, operation, maintenance, repair, closure, and disposal of storage tank systems that store regulated substances shall be in accordance with Chapters 62-761 and 62-762, F.A.C., in order to minimize the occurrence and environmental risks of releases and discharges. Mineral acid storage tank systems are subject only to Rule 62-762.891, F.A.C.

A. Aboveground Storage Tank Systems

Except for aboveground mineral acid storage tank systems, the purpose of the aboveground storage tank regulations is to provide standards for the registration, construction, installation, operation, maintenance, repair, closure, and disposal of storage tank systems that store regulated substances, and to minimize the occurrence and environmental risks of releases and discharges. The standards applicable to aboveground storage tank systems are those tanks having individual storage tank capacities greater than 550 gallons. Regulated mineral acid storage tank systems are for aboveground storage tanks having capacities greater than 110 gallons that contain hydrobromic, hydrochloric, hydrofluoric, phosphoric or sulfuric acid.

The requirements for regulated aboveground storage tanks, unless specified otherwise, apply to owners and operators of facilities, or owners and operators of aboveground stationary storage tank systems with individual storage tank capacities greater than 550 gallons, that contain or contained vehicular fuel, pollutants, or pollutants in unmaintained storage tank systems.

Owners and operators of compression vessels and hazardous substance storage tanks with capacities of greater than 110 gallons containing hazardous substances are only required to comply with subsections 62-762.401(1)-(2), F.A.C.

Owners and operators of aboveground mineral acid storage tank systems with capacities of greater than 110 gallons containing mineral acids are only required to comply with Rule 62-762.891, F.A.C.

B. Underground Storage Tanks Systems

The purpose of the underground storage tanks regulations is to provide standards for the registration, construction, installation, operation, maintenance, repair, closure, and disposal of storage tank systems that store regulated substances, and to minimize the occurrence and environmental risks of releases and discharges. This regulation provides standards for underground storage tank systems having individual storage tank capacities greater than 110 gallons that contain or contained vehicular fuel, pollutants or hazardous substances, or regulated substances in unmaintained storage tank systems.

[Chapters 62-761 and 62-762, F.A.C.]

SECTION B: SPECIFIC CONDITIONS

SECTION B: SPECIFIC CONDITIONS

I. DEPARTMENT OF ENVIRONMENTAL PROTECTION - UNIT 4 & UNIT 5 SPECIFIC CONDITIONS

The following Specific Conditions shall apply only to Unit 4 and Unit 5. Compliance with these Specific Conditions shall be the responsibility of Progress Energy (Fossil).

A. Air

In addition to the federal requirements listed in Section A, Condition V., the Licensee shall comply with the following specific Condition of Certification:

Ambient air monitoring data shall be reported to the Department quarterly commencing on the date of certification by the last day of the month following the quarterly reporting period utilizing the SAROAD or other format approved by the Department in writing. Ambient air monitoring locations are can be found in Attachment B.

B. Water Discharges

1. Wastewater discharges into any waters of the State during construction and operation of the Units 4 & 5 shall be in accordance with all applicable provisions of Chapters 62-620, 62-302, 62-4, 62-601 and 62-160, F.A.C.; 40 CFR 423, Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category; and NPDES Permit FL0036366. Coal storage area runoff collection and treatment system; ash landfill runoff treatment system; runoff collection system discharge; and cooling tower blowdown are regulated under NPDES Permit FL0036366.

2. All discharges of low volume wastes including, but not limited to, wastewater from ion exchange water treatment systems, cooling tower basin cleaning wastes, floor drains (including laboratory/sample drains and similar wastes), metal cleaning wastes (including air preheater, fireside wash, and boiler tube cleaning), and boiler blowdown shall be discharged to an adequately sized and constructed IWW percolation pond (Pond #5) pursuant to requirements of Chapter 62-620, 62-660, 62-520, 62-160, and 62-4, F.A.C..

3. FGD Scrubber Blowdown and By-Products Handling

a. FGD scrubber blowdown wastewater shall be discharged to the approved treatment systems. Any such receiving treatment system shall be permitted/licensed in accordance with all applicable requirements.

i. The Licensee may, on a temporary basis, employ the use of a filter press or other Department-approved solids dewatering process to treat FGD blowdown wastewater from the Units 4 & 5 FGD ponds.

4. Within 180 days of the effective date of Modification P, the licensee shall submit to the Department for review and approval an evaluation of potential alternative(s) to manage Flue Gas Desulfurization (FGD) blow down. The evaluation shall include estimated durations for implementation and completion of the potential FGD blow down management alternatives. In the event the Department deems the evaluation to be incomplete or inadequate, the licensee shall within 90 days of written request from the Department, respond to the Department regarding the information requested and address all concerns raised in the Department's written request. The Department may grant additional time beyond 90 days, if

SECTION B: SPECIFIC CONDITIONS

reasonable justification for the additional time is presented by the licensee for review and consideration. This submittal is subject to the Post Certification Requirements in Section A.XX.

C. Sludge/Solids Management Requirements

1. Management Requirements

a. Management of sludge/solids generated by cleaning of the FGD blowdown treatment ponds at this facility shall be transported by truck to an off-site waste management facility that is authorized by the Department or in accordance with the Licensee's CCP Plan.

b. The Licensee shall be responsible for proper treatment, management, use, or land application of its sludge/solids.

[Rule 62-620.320(6), F.A.C.]

c. Disposal of sludge/solids in a solid waste management facility permitted by the Department shall be in accordance with the requirements of Chapter 62-701, F.A.C.

d. Storage, transportation, and disposal of sludge/solids characterized as hazardous waste shall be in accordance with requirements of Chapter 62-730, F.A.C.

e. Sludge/solids shall not be applied during rains that cause runoff from the site or when surface soils are saturated.

[Rule 62-620.320(6), F.A.C.]

f. The Licensee shall maintain records available for inspection by the Department at the facility, as follows:

- i. Quantity of sludge/solids generated;
- ii. Quantity of sludge/solids transported for treatment and/or disposal;
- iii. Name and location of the site(s) to which sludge/solids is transported; and

iv. If a person other than the Licensee is responsible for sludge/solids transportation, treatment, and/or disposal, the Licensee shall also keep records of the name and address of each transporter, and copies of all shipping manifests.

[Rule 62-620.320(6)]

g. The description of the operation and maintenance procedures for the FGD blowdown ponds provided with the certification modification application received on June 24, 2009, including all subsequently related documents submitted, shall be incorporated into the PEF CCP Solid Waste Management Plan.

2. No gypsum shall be stored or handled on the gypsum handling and temporary storage pad prior to final Departmental approval of the lined Flue Gas Desulfurization (FGD) blowdown settling pond treatment system including contact stormwater from the gypsum handling and temporary storage pad.

SECTION B: SPECIFIC CONDITIONS

3. No contact stormwater from the gypsum handling and temporary storage pad shall be discharged to the SWMS prior to appropriate Department approvals.

4 All gypsum or other industrial by-products generated from the FGD process shall be removed from the site for appropriate reuse or disposal. Gypsum or other industrial by-products resulting from the FGD process shall be stored and managed such that runoff from the materials does not adversely affect ground or surface waters.

D. Environmental Resource Permitting (Gypsum Handling/Storage Pad)

1. The Licensee shall submit inspection reports for the gypsum handling and temporary storage pad in the form required by the Department, FDEP Form # 62-343.900(6), *Inspection Certification*, in accordance with the following schedule:.

(X) For systems utilizing retention and wet detention, the inspections shall be performed 24 months after operation is authorized and every 24 months thereafter.

(X) For systems utilizing effluent filtration or exfiltration the inspections shall be performed 18 months after operation is authorized and every 18 months thereafter.

(X) For systems utilizing swales or retention-and-percolation, the inspections shall be performed 24 months after operation is authorized and every 18 months thereafter.

[Chapter 2.6.3 SWFWMD BOR]

E. Solid Wastes Management Plan

No later than December 31, 2008 or 180 days prior to the initial operation of Unit 4 and 5 FGD scrubbers (whichever occurs first), the Licensee shall submit a site-wide Coal Combustion By-Product (CCP)/Solid Waste Materials Management Plan that addresses operations of the fossil generating units to the Department's SWD Office and Siting Office for review and approval. Handling and monitoring of Solid Waste material shall be in accordance with the site-wide Coal Combustion By-Product (CCP)/Solid Waste Materials Management Plan for the fossil units.

The plan shall, at a minimum, include the following information:

1. descriptions and procedures for all applicable processes for on-site storage practices and management of CCPs, solid wastes and industrial by-products at the site.

2. plans or methods to minimize waste streams, and maximize beneficial use opportunities of CCPs;

3. methods for preventing or minimizing the release of contaminants to the environment, including (as applicable) leachate collection and control methods that meet the requirements of Chapter 62-701, F.A.C.;

4. certification for the above information, as appropriate, by a Professional Engineer registered in the state of Florida.

The Department shall indicate its approval or disapproval of the submitted plans, drawings, maps, analyses and contingency plans within 90 days of the originally submitted information. In the event that the Department requires additional information for the Licensee to

SECTION B: SPECIFIC CONDITIONS

complete, and the Department to approve the CCP/Solid Waste Materials Management Plan, the Department shall make a written request to the Licensee for additional information no later than 30 days after receipt of the originally submitted information.

All revisions or updates to the CCP/Solid Waste Materials Management Plan shall be submitted to the DEP Southwest District Solid Waste Program for review and approval with copies to the Siting Office. Review shall be in accordance with Section A, Condition XXI., Procedures for Post-Certification Submittals. Additionally, the Groundwater Monitoring, Operation and Maintenance Requirements (Attachment H to these Conditions) shall be updated, as appropriate, based on changes to the CCP/Solid Waste Materials Management Plan to reflect revised CCP management practices.

F. Ash Landfill and Coal Storage Area

1. Ash Landfill

a. PEF shall designate a portion of the site as a temporary ash landfill. Associated with the temporary landfill shall be certain sites for the testing and monitoring of leachates and ash storage area liners.

b. Adequate geophysical testing shall be conducted to determine if solution cavities are present under the landfill area. If such cavities are located, such cavities shall be sealed off and stabilized.

c. The proposed ash landfill area shall be monitored and studied pursuant to a detailed leachate testing and monitoring program to be submitted by PEF to the Department within 30 days of certification for review and approval, rejection, or modification within 60 days thereafter. The detailed leachate testing and monitoring program shall be consistent with the conceptual leachate monitoring program attached and incorporated herein as Attachment D.

d. After approval of the program by the Department, PEF shall conduct the approved testing and monitoring program under the supervision of the Department. Results of the program shall be submitted to the Department for its review and consideration on a monthly basis.

e. The results of the program will be used by the Department in determining whether PEF has affirmatively demonstrated that Florida Water Quality Standards (62-520 and 62-550, F.A.C.) will not be violated in determining the zone of discharge and in determining the need for a liner.

f. If the Department determines that PEF has failed to affirmatively demonstrate that Florida Water Quality Standards (62-520 and 62-550, F.A.C.) will not be violated, PEF shall present to the Department, within 90 days of such determination, a plan of correction (which may include, if appropriate, a semi-permeable liner) for review and approval by the Department and for timely implementation by PEF, or PEF shall place an impermeable liner under the final ash landfill site and shall remove all ash from the temporary landfill site and place it on the lined landfill location.

g. The final cover shall be in compliance with Chapter 62-701, F.A.C., and at least 12" of clay or sufficient suitable liner material shall be placed on the top and exposed sides of each finished landfill cell. Sufficient topsoil to support vegetation shall be

SECTION B: SPECIFIC CONDITIONS

placed over the top and side clay liner. The top and exposed sides of the ash landfill shall be vegetated to control erosion.

h. The Licensee is authorized to store or dispose ash and other approved coal combustion by-products in the on-site ash storage/disposal area in accordance with the plans titled, "Ash Storage/Disposal Area Vertical Expansion,..." dated December 2010 (Attachment 7, received August 17, 2011). The permitted maximum height of the ash storage/disposal area shall be no greater than +220 ft. NGVD, with slopes no steeper than 3H:1V. Stormwater benches shall be constructed as shown on the drawings.

i. Within 120 days of final issuance of Modification Q, the Licensee shall provide an ash storage/disposal area operations plan that describes the procedures for filling, compacting, and final closure of the ash storage/disposal area for Department approval. The plan shall include drawings that identify the method and sequence of filling, and a timetable for submittal of detailed closure plans and design.

j. In the event that surface depressions or other occurrences which may be indicative of sinkhole activity, or subsurface instability, are discovered onsite, or within 500 feet of the ash storage/disposal area during the operation, the Department shall be notified verbally within 24 hours of the discovery. Written notification shall be submitted within 7 days of discovery. The written notification shall include a description of the depression, the location and size of the depression shown on an appropriate plan sheet, and a corrective action plan which describes the actions necessary to prevent the unimpeded discharge of waste, leachate or CCPs into ground or surface water. If a depression or subsurface collapse occurs within the ash storage/disposal area, additional materials shall not be placed (stored or disposed) in the affected area until the feature (i.e., depression, sinkhole, collapse, etc.) has been fully investigated and remediated if necessary.

2. Ash Relocation Due to Installation of New Access Road to Support the Units 4 & 5 Clean Air Project

a. Prior to commencement of modifications/additions to the existing access road located along the south and west perimeters of the ash storage area the Licensee shall submit the following items to the DEP SWD Office and Siting Office :

i. a figure, aerial photograph or plan sheet identifying the area where the ash to be removed will be re-located;

ii. plan sheets of existing (pre-construction) conditions and final contours of the ash landfill affected by the access road installation; and

iii. a figure, aerial photograph or plan sheet showing the location and details of any collapsed surface cavities/sinkholes found on the site relative to the ash landfill and proposed access road project.

b. The working face slopes of the relocated ash shall be no steeper than 4H:1V, unless prior approval from the Department's SWD Solid Waste Section and the Siting Office for an alternative slope is obtained.

c. The filtered stormwater drainage downslope of the working face shall not discharge outside the contact stormwater or Industrial Wastewater system.

SECTION B: SPECIFIC CONDITIONS

d. Within 90 days following completion of the access road and restoration of the final cover on the ash landfill in the affected portions, the Licensee shall submit to the Department's SWD Office and Siting Office the following information:

- i. a final survey of the affected portions of the closed ash landfill that demonstrates that the slopes are no steeper than 4H:1V;
- ii. documentation that the clay cover, if used, is no less than 12 inches thick;
- iii. hydraulic conductivity testing results on the constructed clay layer, if used, (5 tests for the first acre, then 1 test/acre/lift for every other acre). Testing should be carried out in accordance with ASTM Method D5084 or equivalent; and
- iv. certification for the above information by a Professional Engineer registered in the state of Florida.
- v. A geosynthetic clay liner (GCL) or other alternative liner system may be used; however, prior to the installation of any alternative liner system, the Licensee shall submit a complete proposed plan to the Department's SWD Solid Waste Section and Siting Office for review and approval.

The plan shall, at a minimum, include specifications for the Construction Quality Assurance Plan and drawings showing the location of the liner cover, soil cover for the liner, and any other relevant information that may be applicable for the type of alternative liner system being proposed.

The Department shall indicate its approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that the Department requires additional information for the Licensee to complete, and the Department to approve the GCL or alternative liner system, the Department shall make a written request to the Licensee for additional information no later than 30 days after receipt of the originally submitted information.

3. Coal Storage Area

Handling and monitoring of the coal storage area and associated wastes shall be in accordance with the site-wide Coal Combustion By-Product (CCP)/Solid Waste Materials Management Plan for the fossil units required by Section B, Condition I.E. Solid Wastes Management Plan.

[Chapters 62-550, 555, 560, and 699, F.A.C.]

G. Units 4 & 5 Domestic Waste Water Treatment System

1. Operation of an existing 0.020 MGD 3-Month Average Daily Flow (3MADF), Type III, extended aeration domestic wastewater treatment plant consisting of: one 20,000 gallon concrete equalization basin, eight aeration basins of 34,000 gallons total volume, two clarifiers of 5,700 gallons total volume and 103 square feet of surface area, one chlorine contact chamber of 1,600 gallons, and two digesters of 8,000 gallons. This plant is operated to provide secondary treatment with basic disinfection.

2. Land Application: An existing 0.020 MGD 12-Month Average Daily Flow (12MADF) permitted capacity Part IV rapid-rate land application system (R-001). R-001

SECTION B: SPECIFIC CONDITIONS

consists of a single cell Rapid Infiltration Basin (RIB) of 13,184 square feet of bottom surface area. R-001 is located approximately at latitude 28° 57' 55" N, longitude 82° 41' 57" W.

The limitations, monitoring, and other requirements are set forth in the following conditions.

a. Reuse and Land Application Systems

i. During the period beginning on the issue date of Modification P, the Licensee is authorized to direct reclaimed water to Reuse System R-001. Such reclaimed water shall be limited and monitored by the licensee as specified below and reported in accordance with condition 2.b.viii:

			Reclaimed Water Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow, to R-001	MGD	Maximum	0.020	Report	-	-	5 Days/Week	Flow meter and totalizer	FLW-01	See Cond.I. A.3
BOD, Carbonaceous 5 day, 20C	MG/L	Maximum	20.0	30.0	-	60.0	Monthly	Grab	EFA-01	
Solids, Total Suspended	MG/L	Maximum	20.0	30.0	-	60.0	Monthly	Grab	EFA-01	
pH	SU	Range	-	-	-	6.0 to 8.5	5 Days/Week	Grab	EFA-01	
Coliform, Fecal	#/100ML	Maximum	200	-	-	800	Monthly	Grab	EFA-01	See Cond.I. A.4
Total Chlorine Residual (For Disinfection)	MG/L	Minimum	-	-	-	0.5	5 Days/Week	Grab	EFA-01	See Cond.I. A.5
Nitrogen, Nitrate, Total (as N)	MG/L	Maximum	-	-	-	12.0	Monthly	Grab	EFA-01	

ii. Reclaimed water samples shall be taken at the monitoring site locations listed and described below:

Monitoring Location	Description of Monitoring Location
EFA-01	Effluent sampling point after treatment and prior to Reuse system R-001.
FLW-01	Flow meter and totalizer located at V –notch weir in the chlorine contact chamber.

iii. A flow meter shall be utilized to measure flow and calibrated at least annually.

SECTION B: SPECIFIC CONDITIONS

[Rules 62-601.200(17) and .500(6), F.A.C.]

iv. The arithmetic mean of the monthly fecal coliform values collected during an annual period shall not exceed 200 per 100 mL of reclaimed water sample. The geometric mean of the fecal coliform values for a minimum of 10 samples of reclaimed water, each collected on a separate day during a period of 30 consecutive days (monthly), shall not exceed 200 per 100 mL of sample. Any one sample shall not exceed 800 fecal coliform values per 100 mL of sample.

[Rules 62-610.510 and 62-600.440(4)(c), F.A.C.]

v. A minimum of 0.5 mg/L total chlorine residual must be maintained for a minimum contact time of 15 minutes based on peak hourly flow.

[Rules 62-610.510 and 62-600.440(4)(b), F.A.C.]

b. Other Limitations and Monitoring and Reporting Requirements

i. During the period beginning on the date of issuance of Modification P, the treatment facility shall be limited and monitored by the licensee as specified below and reported in accordance with condition 2.b.viii:

			Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow, Total Plant	MGD	Maximum	0.020 3MADF	Report	-	-	5 Days/Week	Flow meter and totalizer	FLW-01	See Cond.I.B. 3, 5
Percent Capacity, (3MADF/Permitted Capacity) x 100	%	Maximum	-	Report	-	-	Monthly	Calculation	FLW-01	
BOD, Carbonaceous 5 day, 20C	MG/L	Maximum	-	Report	-	-	Annually ¹	Grab	INF-01	See Cond.I.B. 4
Solids, Total Suspended	MG/L	Maximum	-	Report	-	-	Annually ¹	Grab	INF-01	See Cond.I.B. 4

1 – The annual sample shall be taken in the month of February.

ii. Samples shall be taken at the monitoring site locations listed and described below:

Monitoring Location	Description of Monitoring Location
FLW-01	Flow meter and totalizer located at V –notch weir in the chlorine contact chamber.
INF-01	Influent sampling point prior to treatment and ahead of the return activated sludge line.

SECTION B: SPECIFIC CONDITIONS

iii. The three-month average daily flow to the treatment plant shall not exceed 0.020 MGD.

iv. Influent samples shall be collected so that they do not contain digester supernatant or return activated sludge, or any other plant process recycled waters.

[Rule 62-601.500(4), F.A.C.]

v. A flow meter shall be utilized to measure flow and calibrated at least annually.

[Rule 62-601.200(17) and .500(6), F.A.C.]

vi. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method in accordance with 40 CFR Part 136. Parameters which must be monitored as a result of a ground water discharge (i.e., underground injection or land application system) shall be analyzed in accordance with Chapter 62-601, F.A.C. All monitoring shall be representative of the monitored activity.

[Rule 62-620.610(18), F.A.C.]

vii. The licensee shall provide safe access points for obtaining representative influent, reclaimed water, and effluent samples which are required by these Conditions.

[Rule 62-601.500(5), F.A.C.]

viii. Monitoring requirements under these Conditions are effective on the first day of the second month following the issuance of Modification P. Until such time, the licensee shall continue to monitor and report in accordance with previously effective domestic wastewater permit No. FLA011862 requirements. During the period of operation authorized by these Conditions, the licensee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to these conditions. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type	Monitoring Period	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

SECTION B: SPECIFIC CONDITIONS

Annual	January 1 – December 31	March 28
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DMRs shall be submitted for each required monitoring period including months of no discharge. Unless otherwise specified by the Department, the licensee shall make copies of the DMR and shall submit the completed DMR to the Department postmarked by the 28th of the month following the month of operation at the addresses specified below:

Originals to:

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

Copies to:

Florida Department of Environmental Protection
Domestic Wastewater Program
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926

Siting Coordination Office

[Rules 62-620.610(18) and 62-601.300(1),(2), and (3), F.A.C.]

ix. Unless specified otherwise in these Conditions, all reports and other information required by the Conditions under this Section H. Units 4 & 5 Domestic Waste Water Treatment System, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Southwest District Office at the address specified below with electronic copies to the Siting Office:

Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Phone Number - 813-632-7600
FAX Number - 813-632-7662
Email – DWSWD@DEP.STATE.FL.US

3. Residual Management Requirements

a. The method of residuals use or disposal by this facility is transport to a Residual Management Facility or disposal in a Class I or II solid waste landfill. Transportation of the residuals to an alternative RMF requires a copy of the agreement pursuant to Rule 62-640.880(1)(c), F.A.C., along with a written notification to the Department at least 30 days before transport of the residuals.

b. The licensee shall be responsible for proper treatment, management, use, and land application or disposal of its residuals.

SECTION B: SPECIFIC CONDITIONS

[Rule 62-640.300(5), F.A.C.]

c. The licensee shall not be held responsible for treatment, management, use, or land application violations that occur after its residuals have been accepted by a permitted residuals management facility with which the source facility has an agreement in accordance with Rule 62-640.880(1)(c), F.A.C., for further treatment, management, use or land application.

[Rule 62-640.300(5), F.A.C.]

d. Disposal of residuals, septage, and other solids in a solid waste landfill, or disposal by placement on land for purposes other than soil conditioning or fertilization, such as at a monofill, surface impoundment, waste pile, or dedicated site, shall be in accordance with Chapter 62-701, F.A.C.

[Rule 62-640.100(6)(k)3&4, F.A.C.]

e. If the licensee intends to accept residuals from other facilities, a COC amendment is required pursuant to Rule 62-640.880(2)(d), F.A.C.

[Rule 62-640.880(2)(d), F.A.C.]

f. The licensee shall keep hauling records to track the transport of residuals between facilities. The hauling records shall contain the following information:

Required of Source Facility	Required of RMF
1. Date and Time Shipped	1. Date and Time Received
2. Amount of Residuals Shipped	2. Amount of Residuals Received
3. Degree of Treatment (if applicable)	3. Name and ID Number of Source Facility
4. Name and ID Number of Residuals Management Facility or Treatment Facility	4. Signature of Hauler
5. Signature of Responsible Party at Source Facility	5. Signature of Responsible Party at Residuals Management Facility or Treatment Facility
6. Signature of Hauler and Name of Hauling Firm	

These records shall be kept for five years and shall be made available for inspection upon request by the Department. A copy of the hauling records information maintained by the source facility shall be provided upon delivery of the residuals to the residuals management facility or treatment facility. The RMF licensee shall report to the Department within 24 hours of discovery any discrepancy in the quantity of residuals leaving the source facility and arriving at the residuals management facility or treatment facility.

[Rule 62-640.880(4), F.A.C.]

SECTION B: SPECIFIC CONDITIONS

4. Additional Reuse and Land Application Requirements- Rapid Rate Land Application System (R-001)

a. All ground water quality criteria specified in Chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge. The zone of discharge for this project shall extend horizontally 100 feet from the application site or to the facility's property line, whichever is less, and vertically to the base of the surficial aquifer.

[Rules 62-520.200(23), 62-522.400 and 62-522.410, F.A.C.]

b. Advisory signs shall be posted around the site boundaries to designate the nature of the project area.

[Rule 62-610.518, F.A.C.]

c. The annual average hydraulic loading rate to the rapid infiltration basin(s) shall be limited to a maximum of 2.4 inches per day (as applied to the entire bottom area).

[Rule 62-610.523(3), F.A.C.]

d. Rapid infiltration basins shall be routinely maintained to control vegetation growth and to maintain percolation capability by scarification or removal of deposited solids. Basin bottoms shall be maintained to be level.

[Rules 62-610.523(6) and (7), F.A.C.]

e. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required.

[Rules 62-610.514 and 62-610.414, F.A.C.]

f. Overflows from emergency discharge facilities on storage ponds or on infiltration ponds, basins, or trenches shall be reported as an abnormal event to the Department's Southwest District Office within 24 hours of an occurrence. The provisions of Rule 62-610.800(9), F.A.C., shall be met.

[Rules 62-610.800(9), F.A.C.]

5. Operation and Maintenance Requirements

a. During the period of operation, the Units 4 and 5 domestic wastewater facilities shall be operated under the supervision of an operator certified in accordance with Chapter 62-602, F.A.C. In accordance with Chapter 62-699, F.A.C., this facility is a Category III, Class D facility and, at a minimum, operators with appropriate certification must be on the site as follows:

b. A Class D or higher operator for 3 nonconsecutive days/week for 1½ hour/week. The lead operator must be a Class D operator, or higher.

[Rules 62-620.630(3), 62-699.310 and 62-610.462, F.A.C.]

c. An operator meeting the lead operator classification level of the plant shall be available during all periods of plant operation. "Available" means able to be contacted as needed to initiate the appropriate action in a timely manner. Daily checks of the plant shall be performed by the licensee or his representative or agent 5 days per week. On those

SECTION B: SPECIFIC CONDITIONS

days when the facility is not staffed by a certified operator, the licensee shall ensure that Flow, pH, Total Chlorine Residual (For Disinfection) are monitored in accordance with Part 2 of this section.

[Rule 62-699.311(1), F.A.C.]

d. The licensee shall maintain the following records and make them available for inspection on the site of the permitted facility:

- i. A copy of the current operation and maintenance manual as required by Chapter 62-600, F.A.C.;
- ii. A copy of the facility record drawings;
- iii. Copies of the licenses of the current certified operators; and
- iv. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules. The logs shall, at a minimum, include identification of the plant; the signature and certification number of the operator(s) and the signature of the person(s) making any entries; date and time in and out; specific operation and maintenance activities; tests performed and samples taken; and major repairs made. The logs shall be maintained on-site in a location accessible to 24-hour inspection, protected from weather damage, and current to the last operation and maintenance performed.

[Rule 62-620.350, F.A.C.]

6. Other Specific Conditions

a. Florida water quality criteria and standards shall not be violated as a result of any discharge or land application of reclaimed water or residuals from this facility.

[Rules 62-610.850(1)(a) and (2)(a), F.A.C.]

b. The treatment, management, use or land application of residuals shall not cause a violation of the odor prohibition in Rule 62-296.320(2), F.A.C.

[Rules 62-600.410(8) and 62-640.400(6), F.A.C.]

c. The deliberate introduction of stormwater in any amount into collection/transmission systems designed solely for the introduction and conveyance of domestic/industrial wastewater; or the deliberate introduction of stormwater into collection/transmission systems designed for the introduction or conveyance of combinations of storm and domestic/industrial wastewater in amounts which may reduce the efficiency of pollutant removal by the treatment plant is prohibited, except as provided by Rule 62-610.472, F.A.C.

[Rule 62-604.130(3), F.A.C.]

d. Collection/transmission system overflows shall be reported to the Department in accordance with Chapter 62-620.610(20) F.A.C.

e. The operating authority of a collection/transmission system and the licensee of a treatment plant are prohibited from accepting connections of wastewater discharges which have not received necessary pretreatment or which contain materials or pollutants other than normal domestic wastewater constituents:

SECTION B: SPECIFIC CONDITIONS

- i. Which may cause fire or explosion hazards; or
- ii. Which may cause excessive corrosion or other deterioration of wastewater facilities due to chemical action or pH levels; or
- iii. Which are solid or viscous and obstruct flow or otherwise interfere with wastewater facility operations or treatment; or
- iv. Which result in the wastewater temperature at the introduction of the treatment plant exceeding 40oC or otherwise inhibiting treatment; or
- v. Which result in the presence of toxic gases, vapors, or fumes that may cause worker health and safety problems.

[Rule 62-604.130(54), F.A.C.]

- f. The treatment facility, storage ponds, rapid infiltration basins, and/or infiltration trenches shall be enclosed with a fence or otherwise provided with features to discourage the entry of animals and unauthorized persons.

[Rules 62-610.518(1) and 62-600.400(2)(b), F.A.C.]

- g. Screenings and grit removed from the wastewater facilities shall be collected in suitable containers and hauled to a Department approved Class I landfill or to a landfill approved by the Department for receipt/disposal of screenings and grit.

[Rule 62-701.300(1)(a), F.A.C.]

- h. The licensee shall provide verbal notice to the Department as soon as practical after discovery of a sinkhole within an area for the management or application of wastewater, wastewater residuals (sludges), or reclaimed water. The licensee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department in a written report within 7 days of the sinkhole discovery.

[Rule 62-4.070(3), F.A.C.]

- i. The licensee shall provide adequate notice to the Department of the following:

- i. Any new introduction of pollutants into the facility from an industrial discharger which would be subject to Chapter 403, F.S., and the requirements of Chapter 62-620, F.A.C. if it were directly discharging those pollutants; and
- ii. Any substantial change in the volume or character of pollutants being introduced into that facility by a source which was identified in the permit application and known to be discharging at the time the permit was issued.

Adequate notice shall include information on the quality and quantity of effluent introduced into the facility and any anticipated impact of the change on the quantity or quality of effluent or reclaimed water to be discharged from the facility.

[Rule 62-620.625(2), F.A.C.]

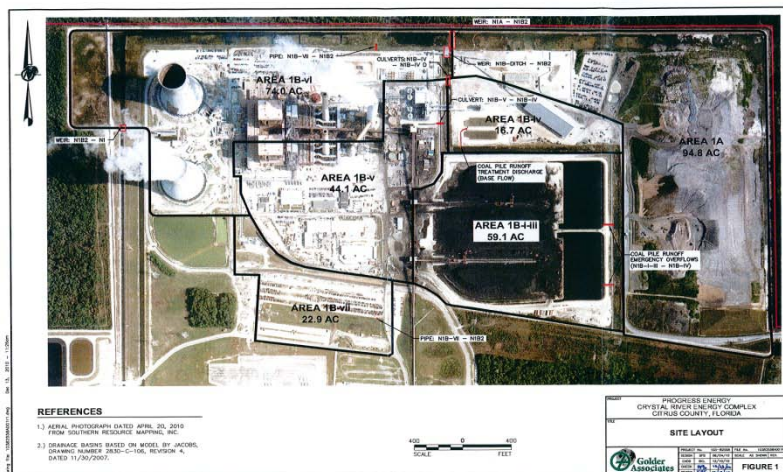
7. General Conditions

SECTION B: SPECIFIC CONDITIONS

The licensee shall comply with all the applicable, non-procedural general permit conditions found in Chapter 62-620.610 (1-23) F.A.C. as these relate to operation of the Units 4 and 5 domestic wastewater collection and treatment facilities.

H. Crystal River North Area Specific Environmental Resource Conditions

1. The following Conditions apply exclusively to the Crystal River North Area (CRN) drainage basins as delineated within the CREC Attachment F.



a. Activities that fall within the areas identified as 1B-i-iii, 1B-iv, 1B-v, 1B-vi, and 1A above will not require an environmental Resource Permit review, including the requirements pursuant to Section A, Condition XXX. Environmental Resources. Activities falling within these defined basins will require review by the DEP Southwest District Industrial Wastewater Waste and/or Solid Waste Sections as appropriate.

b. It has been demonstrated through the Golder Associates North Plant Area Stormwater Jacobs Modeling Report (dated July 19, 2010) and submitted with the PEF Petition for Modification (Mod P) dated September 9, 2010, that the receiving system for Area 1B-Vii is adequate to handle the volume of discharge from that area. For activities within Area 1B-Vii not previously authorized by post certification submittal, the Licensee shall provide the information pursuant to Section A, Condition XXX. Environmental Resources except that further modeling for additional impervious surfaces shall not be required.

II. DEP UNIT 3 SPECIFIC CONDITIONS

The following Specific Conditions shall apply only to Unit 3. Compliance with these Specific Conditions shall be the responsibility of the Progress Energy (Nuclear).

A. Water Discharges

Any discharges into any waters of the State during operation of Unit 3 shall be in accordance with all applicable provisions of Chapters 62-620, 62-302, 62-4, 62-601 and 62-160, F.A.C., and 40 CFR 423, *Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category* and with NPDES Permit No. FL0000159 (attached as Appendix III), as well as any subsequent modifications, amendments and/or renewals. .

SECTION B: SPECIFIC CONDITIONS

B. Environmental Resource Review for South Cooling Tower and Unit 3 Laydown/Parking Areas

1. At least 90 days prior to construction of the South Cooling Tower, the Licensee shall provide to the DEP SWD office all information necessary for a complete Environmental Resource Permit application including the engineering drawings and supporting documentation necessary to demonstrate that the stormwater runoff from the proposed project will be treated and attenuated in accordance with Chapters 40D-4, 40D-40 and 40D-400, F.A.C., and a Wetland Mitigation Plan if applicable. The drawings and documentation shall be signed, sealed and dated by a professional engineer registered in the State of Florida.

2. Within 60 days following certification, and prior to construction of any construction laydown and parking areas associated with Unit 3, the Licensee shall provide to the DEP SWD office all information necessary for a complete Environmental Resource Permit application including the engineering drawings and supporting documentation necessary to demonstrate that the stormwater runoff from the proposed project will be treated and attenuated in accordance with Chapters 40D-4, 40D-41 and 40D-42, F.A.C., and a Wetland Mitigation Plan if applicable. The drawings and documentation shall be signed, sealed and dated by a professional engineer registered in the State of Florida.

3. Prior to the commencement of construction, the Department shall conduct a timely review of the submitted information and request the correction of any errors and omissions to complete the application information. This shall be done in accordance with timeframes established in Section 120.60, F.S., and Rule 62-4.055, F.A.C.

4. The Department shall notify the Licensee in writing that the information is complete upon review of all requested information and the correction of any errors or omissions. Construction shall not begin until the Department has provided written notification of approval of the project including the Wetland Mitigation Plan as applicable. Such approval or denial shall be provided within 30 days following completeness of the application information.

5. Turbidity and sediments must be controlled to prevent violations of water quality pursuant to Rules 62-302.500, 62-302.530(70) and 62-4.242, F.A.C. Best Management Practices, as specified in the Florida Stormwater, Erosion and Sedimentation Control Inspectors Manual, shall be installed and maintained at all locations where the possibility of transferring suspended solids into wetlands and/or surface waters due to the permitted activity. If site-specific conditions require additional measures, then the applicant shall implement them as necessary to prevent adverse impacts to wetlands and/or surface waters.

6. The existing ambient water quality within Outstanding Florida Waters shall not be lowered as a result of the proposed activity, except as authorized by the FDEP under subsection 62-4.242(2), F.A.C.

C. Domestic Wastewater Treatment

Domestic wastewater from Unit 3 shall be treated by the Crystal River Units 1, 2, and 3 Sewage Treatment Plant as authorized by Domestic Wastewater Facility Permit FLA118753 issued by the DEP SW District (attached as V). PEF shall abide by the conditions of Permit No FLA118753 and any modification or renewal thereof for the continued authorized treatment of domestic wastewater from Unit 3. Such provisions shall be fully enforceable as

SECTION B: SPECIFIC CONDITIONS

conditions of this certification. Any violation of such provisions, where it is determined that Unit 3 is the cause, shall be a violation of these Conditions of Certification.

D. Radiological

1. Decommissioning

Upon application to the NRC for authority to decommission the plant, the applicant shall provide the Department a copy of the plan submitted to NRC for radioactive materials removal and/or containment for the site. Should the Department's review of the written plan reveal deficiencies, the Department shall bring such deficiencies to the attention of the applicant and the NRC and maintains the right to initiate a request, consistent with NRC procedural requirements that remedial action be taken to correct the deficiencies.

2. Emergency Plan

The applicant shall work with the State Division of Emergency Management in the Department of Community Affairs and the State Department of Health, Bureau of Radiation Control, and Citrus and Levy Counties in bi-annually updating the emergency procedures and evacuation planning as necessary, including but not limited to improvements in communication and warning systems and in updating predicted plume overlays.

3. Radiological Release Limitations

The recommendation in the Power Plant Site Certification Analysis that certification be issued is based in part upon the fact that in order to obtain a construction permit and operating license from NRC, the applicant must comply with all applicable regulations, requirements, and standards of the U.S. Nuclear Regulatory Commission (NRC) which limit the release of radioactive materials in solid waste, liquid or gaseous effluents to the environment. The above NRC regulations, requirements and standards include the following:

a. Standards for Protection Against Radiation, U.S. Nuclear Regulatory Commission Rules and Regulations, Title 10, Chapter 1, Part 20, Code of Federal Regulations, as presently in effect or hereafter amended.

b. Limitations and conditions for the controlled release of radioactive materials in solid, liquid and gaseous effluents contained in the Radiological Environmental Monitoring Program required by Title 10, 10 CFR 50, Appendix I as presently in effect or hereafter amended..

The Department has the statutory duty to insure that the location and operation of Crystal River Unit 3 will produce minimal adverse effects on human health, the environment, the ecology and the land and its wildlife, and the ecology of State waters and their aquatic life. (Section 403.502, F.S.) The Department has determined that the construction and operation of Crystal River Unit 3 must comply with the above radiological release limitations in order to minimize adverse effects on human health and the environment. This certification is conditioned upon full compliance by the applicant with the applicable above regulations, requirements and standards.

The NRC has the duty and responsibility imposed by statute, to enforce compliance by the applicant with NRC standards and technical specifications, to assure that the construction and operation of Crystal River Unit 3 will be in accord with the common defense and security and will provide adequate protection to the health and safety of the public. See

SECTION B: SPECIFIC CONDITIONS

Section 103(d) of the Atomic Energy Act, 42 U.S.C. section 2133(d) (1970); accord. 42 U.S.C. section 2332(a) (1970) including any subsequent revisions.

However, should the Department determine that the NRC has failed to discharge its duty and responsibility, it may bring any such deficiencies to the attention of the applicant and the NRC, and maintains the right to initiate a request, consistent with NRC procedural requirements, that appropriate enforcement action be taken to correct the deficiencies.

4. Monitoring

The applicant shall comply with the most recent Department of Health Environmental Surveillance Agreement or its equivalent or future replacement. Should the Department of Health determine that additional monitoring is required, it may take appropriate action to require such monitoring by modification of this condition of certification.

5. Reservation of Legal Rights

The Department recognizes that the NRC has exclusive authority in certain areas related to the construction and operation of Crystal River Unit 3. These conditions of certification do not limit, expand or supersede any federal requirement or restriction under federal law, regulation, or regulatory approval or license. Compliance with the conditions herein does not constitute a waiver of the applicant's responsibility to comply with all applicable NRC requirements. Applicant's acceptance of these radiological conditions of certification does not, in and of itself, constitute a waiver by Applicant of any claim that any such radiological conditions are invalid under the doctrine of federal preemption or otherwise by law.

E. Independent Spent Fuel Storage Installation Surface Water Management System

1. The "As Built" forms required by Section A, Condition XXX.A.10 shall be accompanied by a copy of the As-Built or Record Drawings (Drawing Numbers C-1009 through C-1019) with any deviations noted on the drawings.

2. Prior to the transfer of the spill retention pond (SRP) into operation, the licensee shall install erosion control at the point where the SRP discharge enters Stormwater Pond B. The As Built or Record Drawing No. C-1010 shall reference its installation and include a standard detail.

3. The Operation and Maintenance Entity shall perform inspections of the PEF CREC Independent Spent Fuel Storage Installation surface water management system beginning 18 months after operation is authorized and every 18 months thereafter. Every 18 months the Operation and Maintenance Entity shall submit a report of the inspection results to the DEP SWD ERP section, with an electronic copy to the Siting Office, using FDEP Form # 62-343.900(6), *Inspection Certification*.

4. The maintenance of the PEF CREC Independent Spent Fuel Storage Installation surface water management system shall be in accordance with the Stormwater System Operation and Maintenance Plan (Attachment E). It is the responsibility of the Licensee to ensure that the surface water management system is functioning as designed.

5. The SRP valve shall be operated in accordance with CR3 procedure WP-106. Only SRP discharge water that is oil and contact water free, is a source of water for the wetland.

SECTION B: SPECIFIC CONDITIONS

6. Prior to the transfer of the SRP into operation, the Licensee shall install a staff gauge in Stormwater Pond B. The As-Built or Record Drawing No. C-1009 shall reference its location and provide specifications.

7. Prior to operation of the SRP, the Licensee shall submit a revised CR3 procedure WP-106 to the DEP SWD Industrial Waste Water Program (with an electronic copy to the Siting Office) for review and approval. The CR3 procedure WP-106 shall be revised to include:

- a. a description of how the integrity of the liner of the SRP will remain intact during the removal of oil spill wastewater;
- b. a protocol for training personnel; and
- c. a protocol for determining circumstances in which water should be released from the SRP to Pond B.

III. DEP FACILITY-WIDE SPECIFIC CONDITIONS

A. *Groundwater Monitoring Requirements*

1. The Licensee shall comply with the requirements of the approved CREC Groundwater Monitoring, Operation and Maintenance Requirements (GWMOMR) (Attachment H to these Conditions). A violation of the requirements of the GWMOMR shall be a violation of these Conditions.

2. PEF shall abide by the conditions of the approved site-wide GWMOMR and any subsequent modification thereof for the continued authorized discharge of industrial waste water to ground water. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions, where it is determined that CREC is the cause, shall be a violation of these Conditions of Certification.

- a. The requirements of the GWMOMR shall include, but not be limited to, at least the following:
 - i. discharge limitations,
 - ii. monitoring requirements,
 - iii. monitoring well construction requirements,
 - iv. updated aerial showing all monitoring wells (existing and new).
 - v. a description of the complete IWW system including IWW treatment systems, monitoring wells and percolation ponds,
 - vi. sampling locations and parameters to be sampled at each monitoring well and percolation pond location,
 - vii. monitoring frequencies,
 - viii. reporting and recordkeeping requirements, and
 - ix. operational requirements such as testing requirements, land application area maintenance, impoundment operation and maintenance, and impoundment integrity.

SECTION B: SPECIFIC CONDITIONS

b. The GWMOMR shall be revised to comply 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 Section 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, by change in the effluent standards, limitations, or water quality standards previously issued or approved. Revisions to the GWMOMR which involve the following shall be considered a modification to these Conditions and shall be processed in accordance with Section 403.516(1)(c), F.S., and Rule 62-17.211, F.A.C. as applicable.

- i. New major sources or deletion of existing major sources of wastewater;
- ii. Improvements made to existing, or new wastewater treatment facilities including those which provide for a new or expanded land application system which will result in an increase in the permitted capacity;
- iii. Incorporation of newly promulgated applicable rules which are not currently reflected in the License or promulgated rules which are more stringent than the existing conditions in the License;
- iv. Pollutants not addressed in the GWMOMR or these Conditions;

c. All other revisions or updates to the GWMOMR shall be submitted to the DEP Southwest District Office Industrial Wastewater Program and the DEP Southwest District Solid Waste Program as appropriate for review and approval with copies to the Siting Office. Review shall be in accordance with Section A, Condition XXI. Procedures for Post-Certification Submittals. Additionally, the GWMOMR may be updated 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. The Department may develop a Total Maximum Daily Load (TMDL). Once a TMDL has been established and adopted by rule, the Department shall revise the GWMOMR or these Conditions to incorporate the final findings of the TMDL

d. Notwithstanding restrictions elsewhere in these conditions, the approved GWMOMR shall apply to both the certified and noncertified units at the facility, to the extent outlined therein. The requirements shall be fully enforceable on both the certified units and the uncertified units of the facility.

e. The licensee's discharge to ground water shall not cause a violation of water quality standards for ground waters at the boundary of the zone of discharge in accordance with Rules 62-520.400 and 62-520.420, F.A.C.

f. The licensee's discharge to ground water shall not cause a violation of the minimum criteria for ground water specified in Rule 62-520.400, F.A.C., within the zone of discharge. [62-520.400 and 62-520.420(4)]

g. If the concentration of any constituent listed in GWMOMR, Condition I.B.3 in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative background quality shall be the prevailing standard. [Chapter 62-520.420(2), F.A.C.]

SECTION B: SPECIFIC CONDITIONS

h. The licensee shall provide verbal notice to the Department as soon as practical after discovery of a sinkhole within an area for the management or application of wastewater or sludge. The licensee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department in a written report within 7 days of the sinkhole discovery.

B. Water Quality Criteria Exemptions

1. The Licensee has been issued the attached water quality exemption for sodium (Attachment G), under Rule 62-520.500, F.A.C. The Licensee shall comply with the substantive provisions and limitations set forth in the sodium exemption as part of these Conditions. Such provisions shall be fully enforceable as conditions of this certification. Any violation of those provisions shall be a violation of these Conditions.

2. In order for the Licensee to seek Conditions of Certification applying any additional water quality criteria different from those promulgated in rule, the following procedure shall be followed:

a. The Licensee must file a petition for modification with the DEP SCO including the alternate compliance level and demonstrations listed in 62-520.500, F.A.C.

b. The SCO will coordinate review by the affected DEP Division/District office under the procedures for modification set forth in 403.516, F.A.C.

c. The SCO shall issue a Notice of Intent and draft Final Order granting the petition, denying the petition, or granting the petition in part and modifying the Conditions of Certification accordingly. The Department will provide public notice of its intended action/s in the Florida Administrative Weekly along with an opportunity for an administrative hearing under Sections 120.569 and 130.57, F.S. The petitioner shall, on or about the same time that notice is published in the Florida Administrative Weekly, publish this same notice in a newspaper of general circulation in the area affected.

d. The Licensee shall submit a new request for each alternate compliance level of a water quality standard every 5 years from the time of original approval.

[Rules 62-520.500, and 62-500.510, F.A.C.]

C. Transformer and Electric Switching Gear

The foundations for any new or modified transformers, capacitors, and switching gear necessary for Crystal River Units 3, 4 and 5 to connect to the existing transmission system shall be constructed of an impervious material and shall be constructed of an impervious material and shall be constructed in such a manner to allow maximum collection and recovery of any spills or leakage of oily, toxic, or hazardous substances.

D. Public Water System

Any new or modified component of the potable water supply system shall be designed and operated in conformance with applicable Chapters of 62-550, 62-555, 62-560, and 62-699 F.A.C. Information as required in 62-555, F.A.C, shall be submitted to the Department prior to construction and operation of any new or modified components of the system. The operator of the potable water supply system shall be certified in accordance with Chapter 62-699,

SECTION B: SPECIFIC CONDITIONS

F.A.C. Potable water for Unit 3 shall continue to be provided by the separate potable water treatment system operated by Units 1 and 2 (PWS ID 6090601).

IV. DEPARTMENT OF TRANSPORTATION

A. Access Management to the State Highway System

Any access to the State Highway System will be subject to the requirements of Chapters 14-96, State Highway System Connection Permits, and 14-97 Access Management Classification System and Standards, F.A.C.

B. Overweight or Overdimensional Loads

Operation of overweight or overdimensional loads by the applicant on State transportation facilities during construction and operation of the utility facility will be subject to safety and permitting requirements of Chapter 316, F.S., and Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, F.A.C..

C. Use of State of Florida Right of Way or Transportation Facilities

All usage and crossing of State of Florida right of way or transportation facilities will be subject to Chapter 14-46, Utilities Installation or Adjustment, F.A.C.; Florida Department of Transportation's (FDOT) Utility Accommodation Manual (Document 710-020-001); Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; Standard Specifications for Road and Bridge Construction; and pertinent sections of the FDOT's Project Development and Environmental Manual. US 19 has been identified as a Florida Intrastate Highway System (FIHS) and Strategic Intermodal System's (SIS) facilities. The placement of any transmission line or pipeline should take into consideration the planned widening of these facilities. The cost of relocating or reconstructing a transmission line or pipeline will be borne by the applicant to the extent required by Section 337.403, F.S., and Chapter 14-46, F.A.C.

D. Standards

The manual on Uniform Traffic Control Devices; FDOT's Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; FDOT's Standard Specifications for Road and Bridge Construction; FDOT's Utility Accommodation Manual; and pertinent sections of the FDOT's Project Development and Environmental Manual will be adhered to in all circumstances involving the State highway System and other transportation facilities.

E. Drainage

Any drainage onto State of Florida right of way and transportation facilities will be subject to the requirements of Chapter 14-86, Drainage Connections, F.A.C., including the attainment of any permit required thereby.

F. Use of Air Space

Any newly proposed structure or alteration of an existing structure will be subject to the requirements of Chapter 333, F.S., and Rule 14-60.009, Airspace Protection, F.A.C. Additionally, notification to the Federal Aviation Administration (FAA) is required prior to beginning construction, if the structure exceeds notification requirements of 14 CFR Part 77, Objects Affecting Navigable Airspace, Subpart B, Notice of Construction or Alteration.

SECTION B: SPECIFIC CONDITIONS

Notification will be provided to FAA Southern Region Headquarters using FAA Form 7460-1, Notice of Proposed Construction or Alteration in accordance with instructions therein. A subsequent Determination by the FAA stating that the structure exceeds any federal obstruction standard of 14 CFR Part 77, Subpart C for any structure that is located within a 10-nautical-mile radius of the geographical center of a public-use airport or military airfield in Florida will be required to submit information for an Airspace Obstruction Permit from the FDOT or variance from local government depending on the entity with jurisdictional authority over the site of the proposed structure. The FAA Determination regarding the structure serves only as a review of its impact on federal airspace and is not an authorization to proceed with any construction. However, FAA recommendations for marking and/or lighting of the proposed structure are made mandatory by Florida law. For a site under FDOT jurisdiction, application will be made by submitting FDOT Form 725-040-11, Airspace Obstruction Permit Application, in accordance with the instructions therein.

G. Best Management Practices

Traffic control during facility construction and maintenance will be subject to the standards contained in the Manual on Uniform Traffic Control Devices; Chapter 14-94, Statewide Minimum Level of Service Standards, F.A.C.; FDOT's Design Standards for Design, Construction, Maintenance and Utility Operation on the State highway System; FDOT's Standard Specifications for Road and Bridge Construction; and FDOT's Utility Accommodation Manual, whichever is more stringent.

It is recommended that the applicant encourage transportation demand management techniques by doing the following:

1. Placing a bulletin board on site for car pooling advertisements.
2. Requiring that heavy construction vehicles remain onsite for the duration of construction to the extent practicable.

If the applicant uses contractors for the delivery of any overweight or overdimensional loads to the site during construction, the applicant should ensure that its contractors adhere to the necessary standards and receive the necessary permits required under Chapter 316, F.S., and Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, F.A.C.

V. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Unless previously permitted and approved by Florida Fish and Wildlife Conservation Commission, the Licensee is subject to the following:

A. Listed Species Survey.

Before land clearing and construction activities within the Certified Facility occur, the Licensee shall conduct a preliminary general field assessment for listed species which will note all habitat, occurrence or evidence of listed species. Areas assessed for listed species as part of the Environmental Resource Permit process do not need to be reassessed to satisfy this condition.

Listed species to be included in this survey shall include those listed as endangered, threatened or of special concern by Florida Fish and Wildlife Conservation

SECTION B: SPECIFIC CONDITIONS

Commission (FWC) or those listed as endangered or threatened by U.S. Fish and Wildlife Service (USFWS).

For listed species that, in the course of either the general field survey or the Environmental Resource Permit process, are identified or are determined to have the potential to occur, a more detailed assessment will be conducted in accordance with the following guidance:

1. A survey schedule based upon species specific survey requirements identified in USFWS/FWC guidelines and methodologies will be developed. Resources that may be consulted in conducting this assessment are available through the “Florida Wildlife Conservation Guide” at: <http://myfwc.com/CONSERVATION/FWCG.htm>. If no specific guidance exist, standard accepted survey protocol shall be utilized.
2. This survey shall be conducted by a person or firm that is knowledgeable and experienced in conducting flora and fauna surveys for listed species.

B. Listed Species Locations

Where any suitable habitat and evidence is found of the presence of listed species within the Certified Facility, the Licensee will report those locations to, and confer with, the appropriate regulatory agencies for possible additional pre-clearing surveys and to identify potential mitigation, or avoidance recommendations. If pre-clearing surveys are required, they shall be timed to be reasonably compatible with the construction schedule, considering the in-service date specified in the Public Service Commission’s need determination. The Licensee will not construct in areas where evidence of listed species was identified during the initial survey until the particular listed species issues have been resolved.

1. Listed Wildlife Species: If listed wildlife species are found, their presence shall be reported to the DEP Siting Coordination Office, the appropriate DEP District Office(s), the FWC’s Office of Policy and Stakeholder Coordination, the appropriate WMD, the appropriate local government(s) and the USFWS.
2. Listed Vegetation Species: If listed vegetation species are found on public land or water, their presence shall be reported to the DEP Siting Coordination Office and the Florida Department of Agriculture and Consumer Services (DACS). Listed wildlife species and listed vegetation species on public land or water shall not be disturbed, if feasible.
3. Species Management Plan: If avoidance is not feasible, the Licensee shall consult with DEP, FWC, and, if necessary, the USFWS for listed wildlife species, and with the DACS for listed vegetation species on public land or water, to determine the steps appropriate for the species involved which are to be taken to avoid, minimize, mitigate, or otherwise appropriately address impacts within each agency’s respective jurisdiction. For wildlife species, these steps shall be memorialized in a Wildlife Management Plan and submitted to DEP, FWC, and the appropriate local government.

[Chapter 379, F.S.]

VI. DEPARTMENT OF STATE – DIVISION OF HISTORICAL RESOURCES

Unless previously permitted and approved by Division of Historical Resources, the Licensee is subject to the following:

SECTION B: SPECIFIC CONDITIONS

A. The Licensee shall conduct a survey of sensitive cultural resource areas, as determined in consultation with the Department of State, Division of Historical Resources (DHR). A qualified cultural resources consultant will identify an appropriate work plan for this project based on a thorough review of the Certified Facility. Prior to beginning any field work, the work plan will be reviewed in consultation with DHR. Upon completion of the survey, the results will be compiled into a report which shall be submitted to DHR. If feasible, sites considered to be eligible for the National Register shall be avoided during construction of the project and access roads, and subsequently during maintenance. If avoidance of any discovered sites is not feasible, impact shall be mitigated through archaeological salvage operations or other methods acceptable to DHR, as appropriate.

B. If historical or archaeological artifacts or features are discovered at any time within the Certified Facility, the Licensee shall notify the appropriate DEP District office (s) and the DHR, R.A. Gray Building, 500 S. Bronough Street, Rm 423, Tallahassee, Florida 32399-0250, telephone number (850) 487-6333, and the Licensee shall consult with DHR to determine appropriate action.

[Sections 267.061, 403.531, and 872.02, F.S.]

VII. DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

Only herbicides registered by the U.S. Environmental Protection Agency and the Florida Department of Agriculture and Consumer Services shall be used at certified facilities. Herbicide applications will be in accordance with label directions and will be carried out by a licensed applicator, in compliance with all federal, state and local regulations. Herbicide applications shall be selectively applied to targeted vegetation. Broadcast application of herbicide shall not be used unless effects on non-targeted vegetation are minimized.

Directly associated transmission lines from the facility electric switchyard to existing transmission lines shall be maintained in accordance with the application and the appropriate state and federal regulations concerning use of herbicides. The Licensee shall notify the Department of the type of herbicides to be used at least 60 days prior to their first use.

[Chapter 487, F.S.]

VIII. SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT -UNIT 4 AND UNIT 5 SPECIFIC CONDITIONS

The following Specific Conditions shall apply only to Unit 4 and Unit 5. Compliance with these Specific Conditions shall be the responsibility of Progress Energy (Fossil).

A. *Withdrawal Quantities and Facilities*

SWFWMD ID/Owner ID	Water Allocation	Well Casing/Depth Feet	STATUS
	Average Gallons per Day*		
1/PW-1	430,900	35/200	EXISTING
2/PW-2	430,900	47/200	EXISTING
3/PW-3	430,900	60/200	EXISTING
4/PW-4	430,900	41/200	EXISTING

SECTION B: SPECIFIC CONDITIONS

5/PW-5	430,900	35/200	EXISTING
6/PW-6	430,900	50/200	EXISTING
7/PW-7	430,900	50/200	EXISTING
14/PW-8	430,900	50/200	EXISTING
15/PW-9a	430,900	50/200	EXISTING
16/PW-10a	430,900	50/200	EXISTING
Total All Wells	4,309,000*		

* Measured on a rolling annual average daily flow (RAADF) basis.

B. Submit Reports/Data

All reports and data required by these conditions of certification shall be submitted to the SWFWMD according to the due dates contained in the specific condition. If the report or data is received on or before the tenth day of the month following data collection, it shall be deemed as a timely submittal. The Licensee may use the SWFWMD's website to submit data, plans or reports online. To set up an account, the Licensee can address the request to permitdata@watermatters.org. All mailed reports and data are to be sent to:

Water Use Permit Bureau
Southwest Florida Water Management District
7601 Highway 301 North
Tampa, FL 33637-6759

Submission on plans and reports: Unless submitted online or otherwise indicated in the special condition, the original and two copies of each plan and report required herein.

Submission of Data: Unless submitted online or otherwise indicated in the special condition, an original (no copies) is required for data submittals such as meter readings and/or pumpage, rainfall, water level, evapotranspiration, or water quality data.

C. Environmental Impacts, Monitoring, and Mitigation: Environmental Assessment

1. Environmental Monitoring Plan

Licensee shall submit an Environmental Monitoring Plan for SWFWMD review and approval within 90 days of conditions of certification issuance. The monitoring plan, at a minimum shall utilize the SWFWMD's Wetland Assessment Procedure to evaluate the relative condition of surface waters and wetlands in areas affected by water withdrawals of Licensee. Upon SWFWMD approval, the plan shall be implemented and monitoring reports shall be provided in the annual monitoring report required by Condition No. C.6. After two years of monitoring following groundwater use rising to more than 3 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee may request the SWFWMD release the Licensee from monitoring. If the

SECTION B: SPECIFIC CONDITIONS

SWFWMD concurs with the request, the SWFWMD will request DEP modify the conditions of certification to remove the monitoring condition.

2. Data Collection:

Licensee shall maintain and monitor the environmental monitoring sites included in the approved monitoring plan. Water levels for monitor wells and staff gauges for the sites included in the monitoring plan shall be referenced to National Geodetic Vertical Datum (NGVD) and reported in a form acceptable to the SWFWMD by the 10th day of each month for the preceding month. The time and date that the elevation is taken shall be included. Any changes to the methods or frequency of monitoring for any of these data collection programs must be approved by the SWFWMD.

3. Staff Gauges:

Licensee shall install and thereafter maintain SWFWMD-approved staff gauges and shall report measurements of water levels, as indicated in the monitoring plan. Water levels shall be recorded and reported to the SWFWMD on or before the tenth day of the following month. To the maximum extent possible, water levels shall be recorded as indicated in the monitoring plan. The frequency of recording may be modified by the SWFWMD as necessary to ensure protection of the resource.

4. Rain Gauges:

Licensee shall maintain a continuous recording rain gauge within the area. Total daily rainfall shall be recorded at this station and submitted to the SWFWMD (on SWFWMD forms or on line) on or before the tenth day of the following month. The reporting period for these data shall begin on the first day of each month and end on the last day of each month.

5. Data Handling:

Licensee shall monitor water levels in the monitor wells and piezometers as specified in the monitoring plan. Reports of the data shall be submitted to the SWFWMD in a form acceptable to the SWFWMD. All data shall be referenced to NGVD. The frequency of water-level recording may be modified by the SWFWMD as necessary to ensure the protection of the resource.

6. Annual Environmental Monitoring Reports

Licensee shall submit an annual environmental monitoring data summary by April 1st of each year for the preceding water year (January 1 – December 31). The Annual Monitoring Report shall include all raw data, essential graphs, tables, and text. Monitoring progress at each site shall be summarized in the Annual Monitoring Report, as specified below. Licensee shall submit three copies of the Annual Monitoring Report each year. Interpretive reports of wellfield environmental conditions shall incorporate all environmental monitoring sites used. The Annual Monitoring Report shall assess relationships between water level fluctuations, well pumpage, atmospheric conditions, and drainage factors related to the environmental condition of the wetlands and surface waters in the vicinity of the conditions of certification area. Pumpage data, wetland, water level data collected from the aquifer and for the region, and environmental parameters collected at the wellfield and in the region shall be used for the report results. Statistical trend analysis, such as double-mass curve analysis, multiple

SECTION B: SPECIFIC CONDITIONS

linear regression, time series analysis and/or factor analysis shall be performed to analyze the interactions of rainfall and pumpage on surficial water levels, potentiometric levels in the semi-confined aquifers, surface waters, and wetland water levels, rate of soil subsidence, and evidence of vegetational succession. Data shall be obtained through field measurements and aerial photo interpretation. A brief summary of any recommended changes to the monitoring requirements shall be provided.

D. Alternative Water Supply Implementation

The Licensee shall investigate the development of one or more alternative water supply projects to supply the water supply demands to offset all or a portion of the groundwater allocated by these conditions of certification. Alternative water supplies include seawater desalination, brackish surface or ground water, water that has been reclaimed after one or more uses, stormwater, and any other water supply source designated as non-traditional for a water supply planning region in the applicable regional water supply plan. Unless the Environmental Monitoring, specified in Condition C.2. above, and the aquifer performance testing indicate that adverse environmental impacts are not occurring and are not predicted to occur, the Licensee shall either mitigate impacts in accordance with a plan accepted by the SWFWMD, or, select and implement an alternative water supply project, in accordance with the following schedule unless an alternative schedule is approved by the SWFWMD:

1. Within 6 months of groundwater use rising to more than 3 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee shall submit for SWFWMD approval, an Alternative Water Supply Plan. The Alternative Water Supply Plan shall evaluate, identify, and propose alternative water supply development of at least three million two hundred thousand (3,200,000) gallons per day (gpd).

2. Within 2 years of groundwater use rising to more than 3 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, Licensee shall submit to SWFWMD, a preliminary design of the approved alternative water supply project that the Licensee will implement.

3. Within 2 years of groundwater use rising to more than 3 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee shall provide an analysis of environmental conditions as specified in Condition C. above. If SWFWMD determines that adverse environmental impacts are not occurring and not predicted to occur, the Licensee may seek an extension of time or waiver for implementing the alternative water supply project. If SWFWMD determines that adverse environmental impacts are occurring or are predicted to occur, the alternative water supply project schedule must be maintained. If adverse environmental impacts are occurring or predicted to occur, the alternative water supply quantity required to be developed will be determined based upon a revised hydrogeologic evaluation performed by the Licensee and accepted by SWFWMD.

4. Within 2 years of groundwater use rising to more than 3 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, submit to the Florida Department of Environmental Protection and SWFWMD, applications for authorization to develop and use at least 3,200,000 gpd of water from the project as appropriate, unless an extension of time or waiver has been granted by SWFWMD.

SECTION B: SPECIFIC CONDITIONS

5. Within 2 years of groundwater use rising to more than 3 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, submit to SWFWMD an alternative water supply implementation schedule detailing the dates when construction will begin and end, and the date when water will be delivered from the project for use by the Licensee. In no event shall the time when water is supplied by the project be more than more than 4 years after groundwater use has risen to more than 3 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, unless an extension of time for just cause or otherwise modified in writing by SWFWMD has been granted by SWFWMD.

6. Compliance with the Alternative Water Supply Implementation Schedule is required by the Licensee, unless extended or otherwise modified in writing by SWFWMD. Each year, by March 1, after the water use triggers described above, the Licensee shall submit to SWFWMD a status report describing the progress made on the Alternative Water Supply implementation Schedule, including the specific actions taken to meet the requirements set forth above. If the project has fallen behind schedule, Licensee shall provide just cause for the delay and/or explain how the Licensee will comply with the schedule described herein.

E. Compliance Reporting

The Licensee shall submit a compliance report beginning January 28, 2013 and at 5 year intervals thereafter. The report must contain sufficient information to demonstrate reasonable assurance that the withdrawals and use of water authorized by these conditions of certification continue to meet the substantive requirements set forth in Chapter 40D-2, F.A.C., and SWFWMD's Water Use Permit Information Manual Part B, Basis of Review. The compliance report must include:

1. Information documenting water demands and updated demand projections demonstrating that allocations from all sources in the conditions of certification will continue to be needed for the remainder of the conditions of certification duration;
2. Documentation verifying that the sources are capable of supplying the needs authorized by these conditions of certification without causing harm to water and water-related resources;
3. Documentation verifying that the use of water is efficient and that the Licensee is implementing all feasible water conservation measures;
4. An updated ground water modeling analysis and data analysis demonstrating that the use of groundwater does not interfere with legal uses existing at the time of issuance of this modification of the conditions of certification;
5. An updated ground water modeling analysis, along with statistical analyses of water-level and wetland monitoring data, demonstrating that the use does not cause adverse impacts to wetlands, and surface waters, or violations of MFLs;
6. Documentation that ground water withdrawals by the Licensee are not causing or contributing to significant saltwater intrusion, including but not limited to review and statistical analyses of groundwater level and water quality data collected by the Licensee under these conditions of certification;

SECTION B: SPECIFIC CONDITIONS

7. Information demonstrating that the lowest quality source of water is being used to meet the water demands.

Following review of this report, SWFWMD may seek modification of the conditions of certification to ensure that the use continues to meet the substantive conditions for the consumptive use of water as set forth in Section 373.223, F.S., and Chapter 40D-2, F.A.C.

F. Pumpage Reporting

Licensee shall meter withdrawals and record meter readings from each withdrawal point and water supply line on a monthly basis within the last week of the month. The meter readings shall be reported to the SWFWMD on or before the tenth day of the following month. If a metered withdrawal is not utilized during a given month, the meter report shall be submitted to the SWFWMD indicating the same meter reading as was submitted the previous month. The following withdrawals shall be metered:

For withdrawal facilities that are not yet constructed, the Licensee shall install meters on SWFWMD ID Nos. **5, 6, 7, 14, 15, 16**, Licensee ID Nos. **PW-5, PW-6, PW-7, PW-8, PW-9a, PW-10a**, within 90 days of completion of construction of the withdrawal facilities.

Licensee shall continue to maintain and operate existing, non-resettable, totalizing flow meters or other flow measuring devices as approved by the SWFWMD Water Use Bureau Chief on SWFWMD ID Nos. **1, 2, 3, 4**, Licensee ID Nos. **PW-1, PW-2, PW-3, PW-4**.

All meters shall adhere to the following descriptions and shall be installed and maintained as follows:

1. The meters shall be non-resettable, totalizing flow meters with totalizers of sufficient capacity to retain total gallon data for a minimum of the three highest consecutive months. If other measuring devices or other accounting methods are proposed, Licensee shall submit documentation that the other measuring devices or accounting method meet the stipulations listed in this condition, prior to installation. Approval for other measuring devices or accounting methods shall be obtained in writing from the SWFWMD Water Use Bureau Chief.

2. Flow meters or other approved devices shall have and maintain accuracy within five percent of the actual flow as installed.

3. The flow meter-water piping system shall be designed for inline field access for meter accuracy testing. The meter shall be tested for accuracy on-site, as installed, every five years beginning from the date of its installation for new meters or from the date of initial issuance of these conditions of certification containing the metering condition with an accuracy-test requirement for existing meters, unless Licensee submits documentation to the satisfaction of the SWFWMD that a longer period of time for testing is warranted. The test shall be performed by a person certified to use the test equipment. If the actual flow is found to be greater than five percent different from the measured flow, within 30 days, Licensee shall have the meter re-calibrated, repaired, or replaced. Documentation of the test and a certificate of recalibration, if applicable, shall be submitted within 30 days of each test or recalibration. If the accounting method involves a meter belonging to another entity or to the water supplier, Licensee shall submit documentation from the owner/ supplier that the meter readings continue to be accurate to five percent of the actual flow as installed. Such documentation is subject to approval by the SWFWMD.

SECTION B: SPECIFIC CONDITIONS

4. The meter shall be installed according to the manufacturer's instructions for achieving accurate flow to the specifications above, or it shall be installed in a straight length of pipe with at least an upstream length equal to ten times the outside pipe diameter and a downstream length equal to two times the outside pipe diameter. If sufficient pipe length is not available, flow straightening vanes shall be used in the upstream line.

5. If the meter or other flow measuring device malfunctions or has to be removed from the water supply line for maintenance or repair, Licensee shall notify the SWFWMD within 30 days of discovery and replace it with a repaired or new meter, subject to the same specifications given above. The repaired or replacement meter shall be installed within 30 days of discovery. If the meter is removed for any other reason, it shall be replaced with another meter having the same specifications given above, or the meter shall be reinstalled within 30 days of its removal. In either event, a fully functioning meter shall not be off the water supplies line for more than 60 consecutive days.

6. While the meter is being repaired or replaced, Licensee shall provide an estimate of the water supply quantities used by multiplying the number of hours the water supply was used by the capacity of the pump or mainline diameter. The estimate of the number of gallons used each month during that period shall be noted as an estimate when it is submitted to the SWFWMD.

7. In the event a new meter is installed to replace a broken meter, the replacement meter and its installation shall meet the specifications of this condition. Licensee shall notify the SWFWMD of the replacement with the first submittal of meter readings from the new meter.

G. Distribution Flexibility

The average day, peak monthly, and maximum daily, if applicable, quantities for District ID No(s) **1, 2, 3, 4, 5, 6, 7, 14, 15, 16** Licensee ID No(s) **PW-1, PW-2, PW-3, PW-4, PW-5, PW-6, PW-7, PW-8, PW-9a, PW-10a** shown above in the production withdrawal table are estimates based on historic and projected distribution of pumpage, and are for water use inventory and impact analysis purposes. The quantities listed in the table for these individual sources are not intended to dictate the distribution of pumpage from the withdrawal sources. The Licensee may make adjustments in pumpage distribution as necessary up to **125 percent** on a rolling annual average daily flow basis, so long as adverse environmental impacts do not result and other conditions of this certification are complied with. In all cases, the total average annual daily withdrawal and the total peak monthly daily withdrawal are limited to the quantities set forth above.

H. Water quality sampling

1. Water quality samples shall be collected and analyzed for parameters and at the frequencies specified below. Water quality samples from production wells shall be collected from all wells, unless infeasible. If sampling is infeasible, Licensee shall indicate the reason for not sampling on the water quality data form. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, F.A.C., "Certification of Environmental Testing Laboratories". At a minimum, water quality samples shall be collected after pumping the well at its normal rate for a pumping time specified in the

SECTION B: SPECIFIC CONDITIONS

table below, or to a constant temperature, pH, and conductivity. In addition, Licensee's sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. Any variance in sampling and/or analytical methods shall have prior approval of the SWFMWD Water Use Bureau Chief. Reports of the analyses shall be submitted to the Water Use Permit Bureau, SWFMWD, 7601 Highway 301 North, Tampa, FL 33637-6759, (using SWFMWD forms or submitted electronically) on or before the tenth day of the following month, and shall include the signature of an authorized representative and certification number of the certified laboratory which undertook the analysis. The parameters and frequencies of sampling and analyses may be modified by the SWFMWD Water Use Bureau Chief as necessary to ensure the protection of the resource.

District ID No.	Licensee ID No.	Minimum Pumping Time (minutes)	Parameter	Sampling Frequency
1	PW-1	20 minutes	Chlorides, Sulfates, and T.D.S.	February, May, August, and November
2	PW-2	20 minutes		
3	PW-3	20 minutes		
4	PW-4	20 minutes		
5	PW-5	20 minutes		
6	PW-6	20 minutes		
7	PW-7	20 minutes		
14	PW-8	20 minutes		
15	PW-9a	20 minutes		
16	PW-10a	20 minutes		

Water quality samples shall be collected quarterly and on the same week of the months specified. Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association- American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

2. Water quality samples from monitor wells shall be collected and analyzed for the SWFMWD ID No., parameter(s), and frequency(ies) specified in the table below. Water quality samples shall be collected after pumping the monitor wells(s) to a constant temperature, pH, and conductivity. Sampling method(s) shall be designed to collect water quality samples that are chemically representative of the zone to be sampled. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, F. A. C., "Certification of Environmental Testing Laboratories". The Licensee's sampling procedure(s) shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. A report describing the sampling and chain of custody

SECTION B: SPECIFIC CONDITIONS

procedures shall be included with the first data submitted after the date this permit is granted, and upon any change in sampling and/or analytical method(s). Any variance in sampling and/or analytical methods shall have prior approval of the SWFWMD. Reports of the analyses shall be submitted on SWFWMD forms on or before the tenth day of the following month, and shall include the signature of an authorized representative and certification number of the certified laboratory that undertook the analysis. The parameters and frequency of sampling and analysis may be modified by the SWFWMD as necessary to ensure the protection of the resource.

District I District ID No.	Licensee ID No.	Parameter	Sample Frequency
8	MZ-2I	Chlorides,	May, September
9	MZ-2D	Sulfates, and TDS	
10	MZ-2S		
11	MZ-1S		
12	MZ-1I		
13	MZ-1D		

Water quality samples shall be collected based on the following timetable:

Semi-annually Same week of months specified

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

3. The SWFWMD reserves the right to set chloride, sulfate or TDS concentration limits on any production well in the future, based on data collected and after a sufficient data base has been established to determine limits. These limits shall be required after discussions with the Licensee. At such time as the concentration in any water sample reaches or exceeds the designated concentration limits, the Licensee shall take appropriate action to reduce concentrations to below those set for the particular well. If the SWFWMD determines that long-term upward trends or other significant water quality changes are occurring, the SWFWMD may reconsider the quantities included in these conditions of certification.

4. During drilling of District ID Nos. **14, 15, 16**, Licensee ID Nos. **PW-8, PW-9a, PW-10a**, water quality samples shall be collected at intervals of the change of drill rod or 30 feet, whichever is less, from 150 feet to a maximum depth of five feet above the bottom of the well. Regardless of the specified sample collection interval, a sample shall be collected from the depth which corresponds to five feet above the bottom of the well. Samples shall be collected during reverse air drilling, or other appropriate method with prior approval by the SWFWMD.

Samples shall be analyzed by a certified laboratory for Chloride, Sulfate, and Specific Conductivity. Licensee's sampling procedure shall follow the handling and chain of

SECTION B: SPECIFIC CONDITIONS

custody procedures designated by the certified laboratory which will undertake the analysis. Reports of the analyses shall be submitted to the Water Use Permit Bureau (using SWFWMD forms or submitted electronically) within thirty days of sampling, and shall include the signature of an authorized representative and the certification number of the Florida Department of Health certified laboratory utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, F.A.C., "Certification of Environmental Testing Laboratories".

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or by Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

5. Monthly water levels for monitor wells for the sites included in the table below shall be referenced to NGVD, and reported in a form acceptable to the SWFWMD by the tenth day of each month for the preceding month. The time and date that the elevation is taken shall be included. Changes to the methodology, extent, or frequency of monitoring at any of these sites may be modified by the SWFWMD, as necessary to ensure the protection of the resources.

SWFWMD ID. No	Licensee Site No.
8	MZ-2I
9	MZ-2D
10	MZ-2S
11	MZ-1S
12	MZ-1I
13	MZ-1D

I. Wells

1. Wells not in use with no installed pumping equipment shall be capped or valved in a water tight manner in accordance with subparagraph 62-532.500(3)(a)(4), F.A.C.

2. Within 90 days of the completion of each proposed well, Licensee shall submit to the SWFWMD specific capacity (well testing) information from any test performed by the Water Well Contractor or pump installer on the well. This information shall include:

- a. Static water level before pumping
- b. Duration of test pumping
- c. Gallons per minute pumped
- d. Final water level measured during pumping

If step-drawdown tests were performed, the information listed above shall be submitted for each step.

3. Within 90 days of construction, Licensee shall submit to the SWFWMD Water Use Permit Bureau, the specific locations of SWFWMD ID Nos. 14, 15, 16 Licensee ID

SECTION B: SPECIFIC CONDITIONS

Nos. PW-8, PW-9a, PW-10a, on an original blue line aerial with a minimum scale of one inch equals 800 feet, or by latitude/longitude. Intake and mainline diameters for each of the above pumps shall be reported at the time of location reporting.

4. For the purpose of determining site-specific transmissivity, a step drawdown and a multi well constant rate test shall be performed on one or more of the following: SWFWMD ID Nos. 14, 15, 16 Licensee ID Nos. PW-8, PW-9a, PW-10a, after the wells have been fully developed. The test shall be performed in accordance with the specifications set forth in Design Aid 3, Water Use Permit Information Manual and an Aquifer Performance Testing (APT) Plan submitted to and approved by the SWFWMD. The APT Plan shall be submitted to the SWFWMD, within 90 days of the approval of the modification of the conditions of certification. The APT shall be conducted by the Licensee within 6 months of construction of the wells included in the APT Plan and prior to the use of any of the wells constructed for the APT'S. All recorded raw data shall be submitted to the SWFWMD within thirty (30) days of completion of the APT.

5. Within sixty (60) days, the Licensee shall designate one individual responsible for receiving and responding to the SWFWMD notices and correspondence related to these conditions of certification. Notification to the SWFWMD of the designee, including address and telephone number shall be in written form.

6. Within 90 days of conditions of certification issuance, Licensee shall develop and implement a Water Conservation Plan (Plan) that includes practices currently employed or planned. For planned components, include an estimated time-frame for implementation for each. The Plan must indicate that technically and economically feasible water conservation opportunities have been or will be employed.

7. The lowest quality water source, including reclaimed water, surface water and stormwater, must be used for each consumptive use authorized by these conditions of certification when available, except when Licensee demonstrates that the use of the lower quality water source is determined to be not economically, environmentally, or technologically feasible, in accordance with the SWFWMD's Water Use Permit Information Manual Part B, Basis of Review, Sections 4.4 and 4.1 1.

8. Wetlands and other surface waters may not be adversely impacted as a result of the water use authorized by these conditions of certification. If unacceptable adverse impacts occur, the SWFWMD will request that DEP revoke these conditions of certification in whole or in part to curtail or abate the unacceptable adverse impacts, unless the impacts can be mitigated by Licensee.

J. Standard Conditions

Licensee shall comply with the following Standard Conditions:

1. If any of the statements in the application and in the supporting data are found to be untrue and inaccurate, or if Licensee fails to comply with all of the provisions of Chapter 373, F.S., and Title 40D, F.A.C., or the conditions set forth herein, the SWFWMD shall seek revocation of any conditions of certification.

2. These conditions of certification are imposed based on information provided by Licensee demonstrating that the use of water is reasonable and beneficial, consistent with the public interest, and will not interfere with any existing legal use of water. If, during the

SECTION B: SPECIFIC CONDITIONS

term of this certification, it is determined by the SWFWMD that the use is not reasonable and beneficial, in the public interest, or does impact an existing legal use of water, the SWFWMD shall seek modification these conditions of certification or revocation of the certification authorized by DEP.

3. Licensee shall not deviate from any of the SWFWMD- imposed conditions of this certification without written approval by the Department and the SWFWMD.

4. In the event the SWFWMD declares that a Water Shortage exists pursuant to Chapter 40D-21, F.A.C., Licensee agrees that portions of these conditions of certification shall be modified, or declared inactive as necessary to address the water shortage.

5. The SWFWMD shall collect water samples from any withdrawal point listed in these conditions of certification or shall require Licensee to submit water samples when the SWFWMD determines there is a potential for adverse impacts to water quality.

6. Licensee shall provide access to authorized SWFWMD representatives to enter the property at any reasonable time to inspect the facility and make environmental or hydrologic assessments. Licensee shall either accompany the SWFWMD staff onto the property or make provision for access onto the property.

7. Licensee shall cease or reduce any surface water withdrawals as directed by the SWFWMD if water levels in surface water fall below applicable minimum water level established in Chapter 40D-8, F.A.C., or rates of flow in streams fall below the minimum levels established in Chapter 40D-8, F.A.C.

8. Licensee shall cease or reduce withdrawals if water levels in aquifers fall below the minimum levels established by the SWFWMD.

9. Licensee shall practice water conservation to increase the efficiency of transport, application, and use, as well as to decrease waste and to minimize runoff from the property. At such time as the SWFWMD adopts specific conservation requirements for Licensee's water use classification, these conditions of certification shall be modified accordingly.

10. The SWFWMD may establish special regulations for Water Use Caution Areas. At such time as the SWFWMD adopts such provisions, these conditions of certification shall be subject to them upon notice and after a reasonable period for compliance.

11. Licensee shall mitigate any adverse impact to existing legal uses caused by withdrawals. When adverse impacts occur or are imminent, Licensee shall be required to mitigate the impacts. Adverse impacts include:

- a. A reduction in water levels which impairs the ability of the well to produce water;
- b. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses; or
- c. Significant inducement of natural or manmade contaminants into a water supply or into a usable portion of any aquifer water body.

SECTION B: SPECIFIC CONDITIONS

12. Licensee shall mitigate any adverse impact to environmental features or offsite land uses as a result of withdrawals. When adverse impacts occur or are imminent, the Licensee shall be required to mitigate the impacts. Adverse impacts include:

- a. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses;
- b. Sinkholes or subsidence caused by reduction in water levels;
- c. Damage to crops and other vegetation causing financial harm to the owner; and
- d. Damage to the habitat of endangered or threatened species.

13. When necessary to analyze impacts to the water resource or existing users, Licensee shall be required to install flow metering or other measuring devices to record withdrawal quantities and submit the data to the SWFWMD.

14. A SWFWMD identification tag shall be prominently displayed at each withdrawal point by permanently affixing the tag to the withdrawal facility.

15. Licensee shall notify the SWFWMD within 30 days of the sale or conveyance of permitted water withdrawal facilities or the land on which the facilities are located.

16. The annual average daily withdrawal quantity is determined by calculating the total quantity of water to be withdrawn over a one year period, divided by 365 days, which results in a gallons per day (gpd) quantity pursuant to Basis of Review, Section 3.2, Permitted Withdrawal Quantities. This is a running 12-month average, whereby each month the annual average daily quantity is recalculated based on the previous 12-month pumpage.

VIII. SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT -UNIT 3 SPECIFIC CONDITIONS

The following Specific Conditions shall apply only to Unit 3. Compliance with these Specific Conditions shall be the responsibility of the Progress Energy (Nuclear).

Groundwater

No groundwater use by Unit 3 is authorized by these Conditions of Certification. Potable water demand for Unit 3 shall continue to be met by water use authorized under Water Use Permit (WUP) No. 2004695.004 issued by the SWFWMD. (Attached as Appendix VI) WUP No. 2004695.004 authorizes 1,000,000 gallons per day (annual average) and 1,500,000 gpd (peak month) for boiler makeup, pollution control, and potable water needs at Units 1, 2 and 3. The Licensee shall abide by the conditions of WUP No. 2004695.004 and any modification or renewal thereof for the continued authorized use of groundwater in the operation of Unit 3. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions, where it is determined that Unit 3 is the cause, shall be a violation of these Conditions of Certification.

SECTION B: SPECIFIC CONDITIONS

IX. LOCAL GOVERNMENT- Citrus County

A. Noise

Construction noise shall not exceed noise criteria or any applicable requirements of Citrus County. To mitigate the effects of noise produced by any steam blowout of steam boiler tubes, the Licensee shall conduct reasonable public awareness campaigns prior to such activities to forewarn the public that may be affected by the noise of the estimated time and duration of the noise.

B. Screening

The Licensee shall provide screening of the site to the extent feasible through the use of aesthetically acceptable structures, vegetated earthen walls and/or existing or planted vegetation. The Licensee shall develop the site so as to retain the buffer of natural vegetation as described in the Units 4 and 5 application.

C. Odor Control

The Licensee shall employ proper odor control techniques to minimize odor and shall employ control techniques sufficient to prevent nuisance conditions which interfere with enjoyment of residents of adjoining property.

X. HISTORY Formerly

Certification Issued 11/21/78; signed by Governor Askew
Modified 02/22/80; signed by Governor Graham
Modified 05/22/80; signed by Secretary Varn
Modified 05/04/82; signed by Secretary Tschinkel
Modified 06/29/82; signed by Governor Graham
Modified 02/02/84; signed by Secretary Tschinkel
Modified 07/03/84; signed by Governor Graham
Letter Modification 03/28/88; signed by Hamilton Oven Jr.
Modified 06/10/96; signed by Secretary Wetherell
Modification Denial 03/02/98; signed by Secretary Wetherell
Modification 02/01/05; signed by Program Administrator Oven
Modified 06/22/06; signed by Program Administrator Oven
Modified 11/29/07; signed by Program Administrator Halpin
Modified 08/07/08; signed by Program Administrator Halpin
Modified 08/28/08; signed by Governor Crist
Modified 07/09/09 signed by Program Administrator Halpin
Modified 11/30/09 signed by Program Administrator Halpin
Modified 1/15/10; signed by Program Administrator Halpin
Modified 05/14/10; signed by Program Administrator Halpin
Modified 02/08/12; signed by Program Administrator Mulkey
Modified 08/01/12; signed by Program Administrator Mulkey

APPENDIX 10.6.2

**TITLE V AIR OPERATION PERMIT
No. 0170004-042-AV**

Duke Energy Florida, Inc. (DEF)
Crystal River Power Plant

Facility ID No. 0170005
Citrus County

Title V Air Operation Permit Revision

Permit No. 0170004-042-AV
(3rd Revision of Title V Air Operation Permit No. 0170004-024-AV)



Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance

2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400
Telephone: (850) 717-9000
Fax: (850) 717-9097

Compliance Authority:

State of Florida
Department of Environmental Protection
Southwest District Office

13051 North Telecom Parkway
Temple Terrace, FL 33637-0926
Telephone: 813/632-7600
Fax: 813/632-7665

Title V Permit Revision

Permit No. 0170004-042-AV

Table of Contents

<u>Section</u>	<u>Page Number</u>
I. Facility Information.	
A. Facility Description.	2
B. Summary of Emissions Units.	2
C. Applicable Regulations.	2
II. Facility-wide Conditions.	4
III. Emissions Units and Conditions.	
A. Fossil Fuel Steam Generator (FFSG), Units 1 and 2.	6
B. FFSG Units 4 & 5 and Hydrated Lime Storage and Transfer System, EU 032.	11
C. Fly Ash Transfer & Storage, Units 1 and 2.	22
D. Bottom Ash Storage Silo for Units 1 and 2.	25
E. Relocatable Diesel Generators.	28
F. Cooling Towers for Units 1, 2 and 3.	31
G. Cooling Towers for Units 4 and 5.	33
H. Material Handling Activities for Coal-Fired Steam Units.	35
I. Portable Cooling Towers for Units 1 and 2.	37
J. Used Oil Common Condition.	39
K. Limestone and Gypsum Material Handling Activities, EU 023.	41
L. Portable Concrete Batch Plant, EU 033.	44
IV. Acid Rain Part.	46
Phase II Acid Rain Application/Compliance Plan.	
Phase II Acid Rain NO _x Compliance Plan.	
Phase II Acid Rain NO _x Averaging Plan.	
V. Clean Air Interstate Rule Part.	60
VI. Appendices.	64
Appendix A, Glossary.	
Appendix ASP, ASP Number 97-B-01 (With Scrivener's Order Dated July 9, 1997).	
Appendix CAM - Particulate Matter, Compliance Assurance Monitoring Plan for Units 001,002, 003 & 004 and Sulfuric Acid Mist (SAM) Compliance Assurance Monitoring Plan for Units 003 & 004.	
Appendix F, Standard Continuous Monitoring Requirements.	
Appendix I, List of Insignificant Emissions Units and/or Activities.	
Appendix NSPS, Subpart A - General Provisions.	
Appendix NSPS, Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for which Construction is Commenced After August 17, 1971.	
Appendix NSPS, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.	
Appendix NSPS, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.	
Appendix NSPS, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.	
Appendix NSPS, Subpart Y - Standards of Performance for Coal Preparation Plants.	
Appendix NESHAP, Subpart A - General Provisions.	
Appendix NESHAP, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	
Appendix RR, Facility-wide Reporting Requirements.	
Appendix TR, Facility-wide Testing Requirements.	
Appendix TV, Title V General Conditions.	
Appendix U, List of Unregulated Emissions Units and/or Activities.	
Referenced Attachments.	At End
Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).	
Table H, Permit History.	



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**
BOB MARTINEZ CENTER
2600 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

PERMITTEE:

Duke Energy Florida, Inc.
299 First Avenue North
Mail Code CN77
St. Petersburg, Florida 33701

Crystal River Power Plant
Permit No. 0170004-042-AV
Facility ID No. 0170004
Title V Air Operation Permit Revision

The purpose of this permit is to revise Title V air operation permit No. 0170004-024-AV for the above referenced facility to incorporate certain provisions of final air construction permits Nos. 0170004-030-AC (PSD-FL-383E) and 0170004-037-AC (PSD-FL-383F). Permit 0170004-030-AC established the final CO emission limit and Permit 0170004-037-AC authorized the construction/installation of a hydrated lime storage and transfer system for Units 4 and 5 at the Crystal River facility.

The existing Crystal River Power Plant is located in Citrus County at 15760 West Power Line Street, Crystal River, Florida. UTM Coordinates are: Zone 17, 334.3 km East and 3204.5 km North. Latitude is: 28° 57' 34" North and Longitude is: 82° 42' 1" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

0170004-024-AV Effective Date: January 1, 2010
0570039-025-AV 1st Revision Effective Date: April 11, 2011
0170004-035-AV 2nd Revision Effective Date: June 13, 2012
0170004-042-AV 3rd Revision Effective Date: March 25, 2014
Renewal Application Due Date: May 20, 2014
Expiration Date: December 31, 2014

Executed in Tallahassee, Florida.



David Read
2014.03.25
09:08:32 -04'00'

for: Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/dr/jh/th

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

This facility consists of: four coal-fired fossil fuel steam generating (FFSG) units with electrostatic precipitators; two natural draft cooling towers for FFSG Units 4 and 5; helper mechanical cooling towers for FFSG Units 1, 2 and nuclear Unit 3; coal, fly ash, and bottom ash handling facilities; and, relocatable diesel fired generators. The facility is also authorized to operate a portable concrete batch plant (EU 033), as needed for on-site maintenance. Nuclear Unit 3 is not considered part of this permit, although certain emissions units associated with Unit 3 are included in this permit. The facility continuously operates low-NO_x burners, selective catalytic reduction systems (SCR), flue gas desulfurization systems (FGD) which includes limestone and gypsum material handling activities and acid mist mitigation (AMM) systems for existing Units 4 and 5, as authorized by permits No. 0170004-023-AC (PSD-FL-383C) and 0170004-037-AC (PSD-FL-383E). In conjunction with the new control equipment, Units 4 and 5 are now also authorized to burn a blend of bituminous/sub-bituminous coal.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Subsection B. Summary of Emissions Units.

E.U. No.	Brief Description
<i>Regulated Emission Units</i>	
001	FFSG, Unit 1
002	FFSG, Unit 2
004	FFSG, Unit 4
003	FFSG, Unit 5
006	Fly ash transfer (Source 1) from FFSG Unit 1
008	Fly ash storage silo (Source 3) for FFSG Units 1 and 2
009	Fly ash transfer (Source 4) from FFSG Unit 2
010	Fly ash transfer (Source 5) from FFSG Unit 2
014	Bottom ash storage silo for FFSG Units 1 and 2
012	Relocatable diesel generators
013	Cooling towers for FFSG Units 1, 2, and 3
015	Cooling towers for FFSG Units 4 and 5
016	Material handling activities for coal-fired steam units
020	Portable Cooling Towers for FFSG Units 1 and 2
028	3500 kW diesel generator associated with Unit 3
023	Limestone and Gypsum Material Handling Activities
029	Diesel fire pump, south yard
030	Emergency generator (meteorological weather station)
032	Hydrated Lime Storage and Transfer System for Units 4 and 5
033	Portable Concrete Batch Plant
<i>Unregulated Emissions Units and/or Activities</i>	
017	Fuel and lube oil tanks and vents
018	Sewage treatment, water treatment, lime storage
019	Two 3500 kW diesel generators associated with Unit 3

Subsection C. Applicable Regulations.

Based on the Title V air operation revision application received November 9, 2010, this facility is a major source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating internal combustion engines (EU019), it is subject to regulation under 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The existing facility is a

SECTION I. FACILITY INFORMATION.

PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. Summary of applicable regulations is shown in the following table.

Regulation	EU Nos.
40 CFR 60, Subpart A, NSPS General Provisions	003, 004, 016
40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971	003, 004
40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	029
40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	030
40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants	023
40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	028, 029, 030
40 CFR 63, Subpart Y, Standards of Performance for Coal Preparation Plants.	016
40 CFR 75 Acid Rain Monitoring Provisions	001, 002, 003, 004
Rule 62-296.405, F.A.C.	001, 002
Rule 62-210.370, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020
Rule 62-210.700, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020, 033
Rule 62-213.410, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020, 033
Rule 62-213.440, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020, 033
Rule 62-297.310, F.A.C.	001, 002, 003, 004, 006, 008, 009, 010, 013, 014, 015, 016, 020, 032, 033

SECTION II. FACILITY-WIDE CONDITIONS.

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section VI, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An “objectionable odor” means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. The owner or operator shall:

- Tightly cover or close all VOC or OS containers when they are not in use.
- Tightly cover all open tanks which contain VOC or OS when they are not in use.
- Maintain all pipes, valves, fittings, etc., which handle VOC or OS in good operating condition.
- Immediately confine and clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.

[Rule 62-296.320(1), F.A.C.]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- Maintenance of paved areas as needed.
- Regular mowing of grass and care of vegetation.
- Limiting access to plant property by unnecessary vehicles.
- To the extent practicable, the hydrated lime handling and storage operations shall be enclosed and confined to prevent fugitive dust emissions from the unloading, storage and handling of hydrated lime.
- Fabric filters shall be properly maintained on the hydrated lime storage silos to provide assurance that visible emissions exhausted during the filling of the silos and operation of the handling and storage equipment remains below the design emission rate of 5% opacity.

[Rule 62-296.320(4)(c), F.A.C.; Permit No. 0170004-037-AC (PSD-FL-383F); and, proposed by applicant in Title V air operation permit renewal application received May 21, 2009.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW6. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous

SECTION II. FACILITY-WIDE CONDITIONS.

calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070**. Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.}

FW7. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

FW8. Prevention of Accidental Releases (Section 112(r) of CAA).

- a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. (See paragraph e., below.)
- b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Division of Emergency Management, as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
- c. The owner or operator shall submit the required annual registration fee to the Division of Emergency Management on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.
- d. Any required written reports, notifications, certifications, and data required to be sent to the Division of Emergency Management, should be sent to: Division of Emergency Management, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2100, Telephone: (850) 413-9970, Fax: (850) 488-1739.
- e. Any Risk Management Plans, original submittals, revisions, or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
- f. Any required reports to be sent to the National Response Center, should be sent to: National Response Center, EPA Office of Solid Waste and Emergency Response, USEPA (5305 W), 401 M Street SW, Washington, D.C. 20460, Telephone: (800) 424-8802.

SECTION II. FACILITY-WIDE CONDITIONS.

- g. Send the required annual registration fee using approved forms made payable to: Cashier, Division of Emergency Management, State Emergency Response Commission, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2149
[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units 001, 002

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
001	FFSG, Unit 1
002	FFSG, Unit 2

Emissions unit 001 (EU001) is a pulverized coal, dry bottom, tangentially-fired boiler, It is rated at 440.5 megawatt (MW). Emissions are exhausted through a 499 feet stack with a 15 feet exit diameter, 291° F exit temperature and 1,407,923 acfm actual volumetric flow rate.

Emissions unit 002 (EU001) is a pulverized coal, dry bottom, tangentially-fired boiler. It is rated at 523.8 MW. Emissions are exhausted through a 502 feet stack with a 16 feet exit diameter, 300° F exit temperature and 1,931,324 acfm actual volumetric flow rate.

Emissions from both EU001 and EU002 are controlled from each unit with a high efficiency electrostatic precipitator, manufactured by Buell Manufacturing Company, Inc.

{Permitting Notes: These emissions units are regulated under Acid Rain, Phase I and II and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input, and Power Plant Siting Certification PA 77-09 conditions. The pollutants' emissions limits in Rule 62-296.405, F.A.C. have been changed through Permit Nos. 0170004-003-AC, 0170004-006-AC, PSD-FL-007, and PA 77-09. Fossil fuel fired steam generator Unit 1 began commercial operation in 1966. Fossil fuel fired steam generator Unit 2 began commercial operation in 1969.}

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum allowable heat input rate is as follows:

EU No.	MMBtu/hr Heat Input	Fuel Type
001	3,750	Bituminous Coal; or Bituminous Coal and Bituminous Coal Briquette Mixture
002	4,795	Bituminous Coal; or Bituminous Coal and Bituminous Coal Briquette Mixture

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), 62-214.330 & 62-296.405, F.A.C.; and, Permit Nos. 0170004-003-AC and 0170004-006-AC]

{Permitting Note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.}

A.2. Methods of Operation.

a. *Fuels.* The fuels that are allowed to be burned in these units are:

- (1) Bituminous coal,
- (2) Bituminous coal and bituminous coal briquette mixture,
- (3) Distillate fuel oil for startup, and
- (4) Used oil in accordance with the specific conditions in Subsection J.

[Rule 62-213.410, F.A.C.; Permit Nos. 0170004-002-AO; 0170004-005-AO; and, 0170004-006-AC]

A.3. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units 001, 002

A.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **A.5.-A.9.** are based on the specified averaging time of the applicable test method.

A.5. Visible Emissions (VE).

- a. *EU001.* The VE from FFSG Unit 1 shall not exceed 40 percent opacity, six minute average. [Rule 62-296.405(1)(a), F.A.C.; OGC Case No. 86-1576, Order dated December 11, 1986; Permit No. 0170004-003-AC]
- b. *EU002.* The VE from FFSG Unit 2 shall not exceed 20 percent opacity, six minute average, except for one two-minute period per hour during which opacity shall not exceed 40 percent. [Rule 62-296.405(1)(a), F.A.C.; Permit No. 0170004-003-AC]

{Permitting Note: Quarterly PM testing not required per Rule 62-296.405(1)(a), F.A.C. per OGC Case No. 86-1576}

A.6. VE - Soot Blowing and Load Change. Excess emissions resulting from boiler cleaning (soot blowing) and load change shall be permitted provided the duration of such excess emissions shall not exceed 3-hours in any 24 hour period and visible emissions shall not exceed Number 3 of the Ringelmann Chart (60 percent opacity), six minute average, and providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of the excess emissions shall be minimized.

- a. *Load Change.* A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.
- b. *VE > 60%.* VE above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition, for boiler cleaning and load changes, at units which have installed and are operating continuous opacity monitors.

[Rule 62-210.700(3), F.A.C. and Permit No. 0170004-003-AC]

{Permitting Note: These units have operational continuous opacity monitors.}

A.7. Particulate Matter (PM) Emissions. PM emissions shall not exceed 0.1 pound per million Btu heat input. [Rule 62-296.405(1)(b), F.A.C.; Permit No. 0170004-003-AC]

{Permitting note: The averaging time for the particulate matter standard corresponds to the cumulative sampling time of the specified test method.}

A.8. PM - Soot Blowing and Load Change. PM emissions shall not exceed an average of 0.3 pounds per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.; Permit No. 0170004-003-AC]

A.9. Sulfur Dioxide (SO₂).

- a. *Coal Burning.* When burning coal, SO₂ emissions shall not exceed 2.1 pounds per million Btu heat input, 24-hour average.
- b. *Coal/Briquette Mixture.* The maximum percent sulfur content of the coal/briquette mixture shipment shall not exceed 1.05%, by weight, averaged on an annual basis.

[Rule 62-213.440, F.A.C.; PPSC PA 77-09; Permit Nos. PSD-FL-007, 0170004-003-AC; and, 0170004-006-AC]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units 001, 002

A.10. Excess Emissions Allowed.

- a. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- b. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]

A.11. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

A.12. CAM Plan. These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Continuous Monitoring Requirements

A.13. Continuous Monitoring System. Each owner or operator shall install, calibrate, operate and maintain a continuous monitoring system for continuously monitoring opacity. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 C.F.R. Part 51, Appendix P, adopted and incorporated by reference in subsection 62-204.800(2), F.A.C., and 40 C.F.R. Part 60, Appendix B, adopted by reference in subsection 62-204.800(7), F.A.C. [Rule 62-296.405(f), F.A.C.]

{Permitting Note: The Acid Rain CEMs, required by 40 CFR 75, satisfies Specific Condition A.13.}

Test Methods and Procedures

A.14. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
3	Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight
3A	Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources
5	Determination of Particulate Emissions from Stationary Sources
5B	Determination of Nonsulfuric Acid Particulate Matter from Stationary Sources
5F	Determination of Nonsulfate Particulate Matter from Stationary Sources
6	Determination of Sulfur Dioxide Emissions from Stationary Sources
6A	Determination of Sulfur Dioxide Daily Average Emissions from Fossil Fuel Combustion Sources
6B	Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions From Fossil Fuel Combustion Sources
6C	Determination of Sulfur Dioxide Emissions from Stationary Sources

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units 001, 002

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
17	Determination of Particulate Emissions from Stationary Sources (In-Stack Filtration Method)
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
ASTM D2013-72, ASTM D3177-75, ASTM D4239-85, or latest ASTM edition methods	Standard Methods by the American Society of Testing and Materials for Fuel Analysis

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-297.401, and 62-204.800, F.A.C., Permit No. 0170004-003-AC]

- A.15. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- A.16. Annual Compliance Tests Required.** Except as provided in Specific Condition **A.23.**, during each federal fiscal year (October 1st to September 30th), each EU001 and EU002 shall be tested to demonstrate compliance with the emissions standards for PM and VE. [Rule 62-297.310(7), F.A.C.; OGC Case No. 86-1576; and Permit No. 0170004-003-AC]
- A.17. Compliance Tests Prior To Renewal.** Except as provided in Specific Condition **A.23.**, compliance tests shall be performed for PM and VE once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **A.5. – A.9.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]
- A.18. PM Emissions.** The test methods for PM emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. [Rules 62-213.440, 62-296.405(1)(e)2., and 62-297.401, F.A.C.; Permit No. 0170004-003-AC]
- A.19. VE.** The test method for VE shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C. In lieu of Method 9 testing, a transmissometer utilizing a 6-minute block average for opacity measurement may be used, provided such transmissometer is installed, certified, calibrated, operated and maintained in accordance with the provisions of 40 CFR 75. [Rules 62-296.405(1)(e)1. and 62-297.401, F.A.C.; Permit No. 0170004-003-AC]
- A.20. SO₂.** The test methods for SO₂ emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedances of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units 001, 002

sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee may demonstrate compliance using fuel sampling and analysis.** If the permittee elects to discontinue fuel sampling and analysis, it shall perform a stack test for sulfur dioxide at the time of the next particulate matter test, and annually thereafter until fuel sampling and analysis is resumed. [Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.401, F.A.C.; Permit No. 0170004-003-AC; PA 77-09]

A.21. SO₂ – Fuel Analysis. The owner or operator may demonstrate compliance with the SO₂ limitation using fuel sampling and analysis. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **A.20.** and **A.22.** [Rule 62-296.405(1)(f)1.b., F.A.C.; Permit Nos. 0170004-003-AC and 0170004-006-AC]

A.22. SO₂ – Alternate Fuel Sampling. The following fuel sampling and analysis program shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the SO₂ standard:

- Method.* Determine and record the as-fired fuel sulfur content, percent by weight, for coal using appropriate ASTM methods such as, ASTM D2013-72, ASTM D3177-75, and ASTM D4239-85, or latest ASTM edition methods, to analyze a representative sample of coal following each fuel delivery.
- Recordkeeping.* Record daily the amount of coal fired, the density of each fuel, the Btu value, and the percent sulfur content by weight of each fuel.
- Calculations.* Utilize the information in a. and b., above, to calculate the SO₂ emission rate to ensure compliance at all times.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.; Permit Nos. 0170004-003-AC and 0170004-006-AC]

A.23. When PM Tests Not Required. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

- only gaseous fuel(s); or
- gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]

Recordkeeping and Reporting Requirements

A.24. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Notice of Excess Emissions	Quarterly	A.25.

A.25. Quarterly Reporting. The owners or operators shall submit to the Department a written report of emissions in excess of the emission limiting standards, for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the facility for a period of five years. [Rules 62-213.440 and 62-296.405(g), F.A.C.]

A.26. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Other Requirements

A.27. These emissions units are also subject to conditions contained in **Subsection J. Used Oil Common Condition.**

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

The specific conditions in this section apply to the following emissions units:

EU No.	Emission Unit Description
003	FFSG, Unit 5
004	FFSG, Unit 4
032	Hydrated Lime Storage and Transfer System

Emissions units 003 and 004 (Unit 5 and Unit 4, respectively) are fossil fuel-fired electric utility steam generators, each consisting of a pulverized coal, dry bottom, wall-fired boiler rated at 760 MW. Air pollution control equipment includes: low-NO_x burners; selective catalytic reduction (SCR) systems; flue gas desulfurization (FGD) systems; acid mist mitigation (AMM) systems; and, an electrostatic precipitators (ESP) manufactured by Combustion Engineering. Units 4 and 5 share a common 550 foot tall chimney with separate internal stack liners with continuous emissions monitoring systems (CEMS) on each stack liner. The flue gases exhaust at 130° F with a volumetric flow rate of 2,205,195 acfm through the individual stack liners, which are 30.5 feet in diameter.

Emissions unit 032 is a hydrated lime storage and transfer system for Units 4 and 5 consisting of the following primary components for each unit: a hydrated lime storage silo, which is controlled by a dust collector fabric filter (silo vent filter), rotary valves and blowers for pneumatic delivery of the hydrated lime and hydrated lime injection lances. A delivery truck pneumatically fills the hydrated lime storage silos with hydrated lime for approximately six hours per day. Each hydrated lime silo has dedicated rotary valves and blowers for pneumatic delivery of the hydrated lime to sets of injection lances mounted in flue gas ducts at various locations along the flue gas path. The pneumatic conveyor is also controlled by the dust collectors on the hydrated lime storage silos.

{Permitting Notes: Emissions units 003 and 004 are regulated under Acid Rain, Phase I and II and Rule 62-210.300, F.A.C., Permits Required; 40 CFR 60 Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971; PSD-FL-007 issued by EPA in February 1978 and, Power Plant Siting Certification PA 77-09 conditions. Fossil fuel fired steam generator Unit 4 began commercial operation in 1982. Fossil fuel fired steam generator Unit 5 began commercial operation in 1984. Emissions unit 032 is regulated under Rule 62-212.300, F.A.C., and by applicable requirements established in Permit No. 0170004-037-AC (PSD-FL-383F).}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum allowable heat input rate is as follows:

Unit No.	MMBtu/hr Heat Input	Fuel Type
004	7,200	Bituminous Coal and Bituminous Coal /Bituminous Coal Briquette Mixture
003	7,200	Bituminous Coal and Bituminous Coal /Bituminous Coal Briquette Mixture

The maximum heat input rates to Units 4 and 5 are 7,200 MMBtu per hour per unit based on a 24-hour block average (midnight to midnight) and 6,800 MMBtu per hour per unit based on a 30-day rolling average. Compliance shall be demonstrated by collecting the fuel feed rate and fuel heating values as monitored by the existing operating data monitoring system. [Permit No. 0170004-023-AC (PSD-FL-383C), Specific Condition 3.A.5.a.]

B.2. Methods of Operation - Fuels. The fuels that are allowed to be burned in these units are:

- Bituminous coal,
- Bituminous coal and bituminous coal briquette mixture with the exception that No. 2 Fuel oil may be used as an ignitor fuel and natural gas may be used as a startup and low load flame stabilization fuel.
- Used oil in accordance with the specific conditions of this permit (See Subsection J.).

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

- d. Blend of approximately 80% bituminous coal with 20% Powder River Basin coal (sub-bituminous coal). Coal fuel blends shall not exceed a maximum sulfur content of 3.13% by weight.
[Rule 62-213.410, F.A.C.; Permit Nos. 0170004-006-AC and 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.6.; PPSC PA-77-09 and modified conditions]

B.3. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

B.4. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Control Technology

B.5. Emissions Control Equipment and BACT Controls.

- a. *Low-NO_x Burners.* The permittee is required to operate and maintain low-NO_x burners manufactured by Babcock & Wilcox (Model No. DRB-42) or equivalent. Based on the preliminary design, each unit contains 54 burners.
- b. *Selective Catalytic Reduction (SCR) Systems.* The permittee is required to operate and maintain SCR systems to reduce NO_x emissions. Each system consists of the following basic components: an ammonia injection grid, a mixing grid, SCR reactor with catalyst modules, a urea-to-ammonia processing system, associated bulk storage systems, an automated control system, piping, electrical, and other ancillary equipment. As needed, urea shall be converted into ammonia, which shall be mixed to the proper concentration. Ammonia shall be injected ahead of the SCR reactor, which is installed upstream of the air heater for each unit. The ammonia combines with NO_x in the presence of the catalyst in a reduction reaction to form nitrogen and water. Based on the preliminary design, the SCR systems are capable of a 90% reduction in NO_x emissions with a maximum ammonia slip of 2 to 5 ppmv. The system also incorporates dampers and ductwork to provide the capability of bypassing the SCR system. The bypass is most commonly used to gradually heat or cool the catalyst structure to minimize thermal fatigue during startup and shutdown.
- c. *Flue Gas Desulfurization (FGD) Equipment.* The permittee is required to operate wet flue gas desulfurization (FGD) systems after the existing ESPs and induced draft fans to reduce SO₂ and other acid gas emissions. A limestone slurry shall be injected into the FGD absorbers at the design feed rate of approximately 352 gallons per minute (gpm). The slurry consists of approximately 25 to 30% solids and a specific gravity of 1.22. Based on the preliminary design, the FGD systems are capable of a 97% reduction in SO₂ emissions. In addition to the FGD absorbers, the systems consist of: limestone storage and handling; limestone preparation; limestone slurry injection; FGD blowdown; and, gypsum dewatering, transfer and storage.
- d. *Acid Mist Mitigation (AMM) Systems to Reduce Sulfuric Acid Mist (SAM) Emissions.* The permittee is required to control SAM emissions from currently authorized coal fuel blends through either lime injection (primary) or alkali injection (backup). The design for the AMM systems is to use either hydrated lime or ammonia. The hydrated lime or ammonia reacts with sulfur trioxide (SO₃) to form salts (e.g., bisulfates), which shall be removed by the ESP and/or the FGD. The design for both systems is for an 85% reduction.
 - (1) The hydrated lime shall be injected into the flue gas through a combination of locations after the boiler (i.e., after the air heaters, after the SCR reactor, and before/after the existing ESP). The hydrated lime injection rates will vary based on emission control levels and operational parameters at each of the hydrated lime injection locations. The hydrated lime reacts with the acidic compounds in the flue gas stream to form particulate matter that will be removed in the ESP and/or in the wet scrubber.
 - (2) The alkali injection system uses ammonia generated from the urea-to-ammonia processing system, which is part of the SCR system. When used as a backup to the lime injection, the ammonia shall be injected through a uniform injection grid located after the boiler air heaters and SCR reactor and before or after the existing ESP.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

- e. *Electrostatic Precipitator (ESP)*. The permittee is required to operate and maintain the existing ESPs to achieve the PM/PM₁₀ emissions standards.
- f. *Hydrated Lime Injection Systems Dust Collectors*. A dust collector is required on each hydrated lime storage silo to control emissions from the loading of the hydrated lime storage silo and unloading and transfer from the silo to the injection lances. The silo dust collector has a flow rate of approximately 2,000 scfm during the loading operations, which are estimated to occur for 6 hours per day. Each dust collector is designed for a dust outlet specification of 0.015 grains/dry standard cubic feet (dscf).
[Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Conditions 3.A.2. & 3. and 0170004-037-AC (PSD-FL-383F), Specific Conditions A.3.a., H.2, H.3. & H.5.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **B.6. – B.15.** are based on the specified averaging time of the applicable test method.

B.6. PM Emissions. No owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which:

- a. Contain PM in excess of 43 nanograms per joule heat input (0.10 lb per million Btu) derived from fossil fuel.
- b. Exhibit greater than 20 percent opacity, six minute average, except for one six-minute period per hour of not more than 27 percent opacity.
- c. As determined by EPA Method 5 or 5b, PM emissions shall not exceed 0.030 lb/MMBtu and 216.0 lb/hour based on a 3-run test average conducted at permitted capacity.

[40 CFR 60.42(a)(1) & (2)a&b; Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.b.^c]

B.7. SO₂ Emissions. No owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which contain SO₂ in excess of:

- a. 340 nanograms per joule heat input (0.80 lb per million Btu), 24-hour average, derived from liquid fossil fuel.
- b. 520 nanograms per joule heat input (1.2 lb per million Btu), 24-hour average, derived from solid fossil fuel.
- c. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) shall be determined by proration using the following formula:

$$PSSO_2 = [y(340) + z(520)]/(y+z)$$

where:

PSSO₂ is the prorated standard for sulfur dioxide when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired,

y is the percentage of total heat input derived from liquid fossil fuel, and

z is the percentage of total heat input derived from solid fossil fuel.

- d. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.
- e. As determined by CEMS data, SO₂ emissions shall not exceed 0.27 lb/MMBtu of heat input based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction. As determined by CEMS data, SO₂ emissions shall not exceed 1,944.0 lb/hour per unit based on a 24-hour block average excluding startup, shutdown and malfunction of the FGD system.

[(40 CFR 60.43(a), (b) and (c); and, PPSC PA 77-09)^{a-d}; Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.9.b.^c]

B.8. SO₂ – Sulfur Content.

- a. The maximum percent sulfur content of the coal/briquette mixture shall not exceed 0.68%, by weight, averaged on an annual basis. [Rule 62-213.440, F.A.C.; and, Permit No. 0170004-006-AC]
- b. Fuel oil shall not contain more than 0.73% sulfur by weight. (See Specific Condition **B.2.**) [Rule 62-213.410, F.A.C.; PPSC PA-77-09 and modified conditions]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

- c. Coal fuel blends shall not exceed a maximum sulfur content of 3.13% by weight. (See Specific Condition B.2.d.) [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.6.a.]

- B.9. Nitrogen Oxides (NO_x) Emissions.** No owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO₂, in excess of:
- a. 86 nanograms per joule heat input (0.20 lb per million Btu), 30-day rolling average, derived from gaseous fossil fuel.
 - b. 129 nanograms per joule heat input (0.30 lb per million Btu), 30-day rolling average, derived from liquid fossil fuel.
 - c. 300 nanograms per joule heat input (0.70 lb per million Btu), 30-day rolling average, derived from solid fossil fuel.
 - d. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PSNO_x = \frac{x(86)+y(130)+z(300)}{x+y+z}$$

where:

PSNO_x = is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels fired;

x = is the percentage of total heat input derived from gaseous fossil fuel;

y = is the percentage of total heat input derived from liquid fossil fuel; and,

z = is the percentage of total heat input derived from solid fossil fuel.

- e. As determined by CEMS data, NO_x emissions shall not exceed 2,085 tons per year per unit based on a 12-month rolling average for all periods of operation including startup, shutdown and malfunction. [(40 CFR 60.44(a)(2) and (3), and (b); and, PPSC PA 77-09)^{a-d}; Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.9.a.e.]
- B.10. Ammonia Slip Emissions.** As determined by EPA Method CTM-027 (or equivalent), the ammonia slip shall not exceed 5 ppmv based on a 3-run test average conducted at permitted capacity. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.a.]
- B.11. Sulfuric Acid Mist (SAM) emissions.** As determined by EPA Method 8 or 8A, SAM emissions shall not exceed 0.009 lb/MMBtu and 64.8 lb/hour based on a 3-run test average conducted at permitted capacity. This standard applies at all times except during periods of maintenance and repair as authorized by this permit. Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.c.]
- B.12. Volatile Organic Compound (VOC) Emissions.** As determined by EPA Method 25A, VOC emissions shall not exceed 0.004 lb/MMBtu and 28.8 lb/hour based on a 3-run test average conducted at permitted capacity. Optionally, EPA Method 18 may be conducted concurrently in order to deduct non-regulated VOC emissions such as methane and ethane. Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.d.]
- B.13. Opacity.** As determined by EPA Method 9, the stack opacity shall not exceed 10% based on a 6-minute block average, except for one 6-minute period per hour of not more than 20%. Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.e.]
- B.14. Carbon Monoxide (CO) Emissions.** As determined by CEMS data, CO emissions shall not exceed 0.10 lb/MMBtu of heat input based on a 30-day rolling average excluding periods of startup, shutdown and malfunction. As determined by CEMS data, CO emissions shall not exceed 680.0 lb/hour based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction. [Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Conditions 3.A.9.c. & d., 0170004-030-AC (PSD-FL-383E), Specific Condition 9. and 0170004-037-AC (PSD-FL-383F), Specific Condition A.9.c.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

B.15. Hydrated Lime Injection Systems Opacity Work Practice Standard – Dust Collectors. As determined by EPA Method 9 upon request, visible emissions from each dust collector fabric filter exhaust shall not exceed the design emissions rate of 5% opacity, based on a 6-minute average. This visible emissions limit is a work practice standard to prevent circumvention of the control device and ensure proper operation. If visible emissions in excess of this standard occur, the permittee shall investigate the cause and take corrective action to regain operation below the standard (e.g., cause: bag failure / corrective action: replaced bags). For this equipment, visible emissions in excess of the opacity standard are not necessarily a violation of this permit; however, failure to investigate excess emissions and take corrective action to minimize emissions may be considered circumvention of a control device. [Rule 62-297.310(7)(b), F.A.C. and Permit No. 0170004-037-AC (PSD-FL-383F), Specific Condition H.4.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

B.16. Excess Emissions Allowed.

- a. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
- b. In accordance with Rule 62-210.700(6), F.A.C., excess emissions due to startup, shutdown or malfunction have been considered in establishing the sets of CEMS-based emissions standards of this permit. With regard to SAM emissions, the AMM systems must be shutdown to conduct some maintenance and repairs. The following additional conditions apply to the AMM systems:
 - (1) *Preventive Maintenance.* To minimize malfunctions of the AMM systems and resulting excess SAM emissions, the permittee shall conduct annual preventive maintenance.
 - (a) Whenever possible, the preventive maintenance shall be scheduled for a period when the unit (Unit 4 or Unit 5) is down for a scheduled outage, which occurs approximately every 18 months per unit.
 - (b) When conducting the required preventative maintenance of the AMM systems, the permittee may operate the unit while firing “substitute coal” without the AMM systems in operation for no more than 240 hours per calendar year. If stack testing demonstrates compliance with the SAM emissions standard while firing “substitute coal” for a given sulfur content without the AMM systems in operation, the hours of operation while firing that coal shall not count towards this operational restriction.
 - (2) *Repair.* The following conditions apply to malfunctions of the AMM systems. A malfunction is defined as, “Any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.”
 - (a) The permittee shall maintain a list and inventory of spare parts associated with the shared AMM system equipment to facilitate quick repairs.
 - (b) When a malfunction occurs, the permittee shall immediately investigate to determine the corrective action required. For malfunctions that will require an extended period of time to repair, the permittee shall begin preparations to fire “substitute coal” or to begin operation of the alternative AMM system (either the ammonia based, or hydrated lime based system, whichever is not currently in operation). When initially evaluating a given malfunction and performing the repair, Units 4 and/or 5 may be operated without the AMM system for no more than 72 hours; thereafter, Units 4 and/or 5 shall begin firing “substitute coal” or begin operation of the alternative AMM system in order to continue operating while the plant makes the repair.
 - (c) The AMM systems shall not be offline (including the malfunctions) for more than a total of 480 hours per calendar year to evaluate malfunctions and conduct repairs. This operational restriction shall include: authorized hours of firing normal coal for initial evaluation and repair (up to 72

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

hours per event); and authorized hours of operation firing “substitute coal” that has not yet demonstrated compliance with the SAM emissions standard. If stack testing demonstrates compliance with the SAM emissions standard while firing “substitute coal” for a given sulfur content without the AMM systems in operation, the hours of operation while firing that coal shall not count towards this operational restriction.

- (3) *Purpose.* The purpose of this condition is to provide operational flexibility to conduct timely maintenance and repair on the AMM system used by Units 4 and 5 while minimizing excess SAM emissions. Once compliance is demonstrated for firing “substitute coal” with a given sulfur content, periodic testing is not required except as allowed by Rule 62-297.310(7)(b), F.A.C. (Special Compliance Tests). In addition, the compliant sulfur content for “substitute coal” shall be established based on the following equation:

$$\% S_{\text{Comp.}} = (\% S_{\text{Tested}}) (SAM_{\text{Limit}}) / (SAM_{\text{Tested}})$$

Where:

$\% S_{\text{Comp.}}$ = Maximum percent sulfur content by weight that would demonstrate compliance

$\% S_{\text{Tested}}$ = Actual percent sulfur content by weight fired during stack test

SAM_{Limit} = Permitted SAM emissions limit, 0.009 lb/MMBtu

SAM_{Tested} = Actual SAM emissions rate in lb/MMBtu based on stack test

Example: Stack testing shows an actual SAM emissions rate of 0.0085 lb/MMBtu when firing substitute coal with a sulfur content of 0.98% by weight and the AMM systems offline. Therefore, the maximum sulfur content of “substitute coal” considered demonstrated would be:

$$\% S_{\text{Comp.}} (SC) = (0.98\% S) (0.009 \text{ lb/MMBtu}) / (0.0085 \text{ lb/MMBtu}) = 1.04\% \text{ sulfur by weight}$$

Therefore, if “substitute coal” is fired with an actual sulfur content equal to or less than the maximum sulfur content as calculated above ($\% S_{\text{Comp.}}$), then the hours while firing that coal do not count towards the operational restrictions specified for maintenance and repair. If “substitute coal” is fired with an actual sulfur content higher than the calculated value ($\% S_{\text{Comp.}}$), then the hours while firing that coal do count towards the operational restrictions specified for maintenance and repair.

[Rules 62-210.700(1) & (6), F.A.C., Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Condition 3.A.12., and 0170004-037-AC (PSD-FL-383F), Specific Condition A.12.]

- B.17. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C. and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.11.]

- B.18. NSPS Excess Emissions.** Excess emissions shall be as defined in 40 CFR 60.45(g), Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971. [40 CFR 60.45(g)]

Monitoring of Operations

- B.19. CAM Plan.** These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

- B.20. Ambient Air Monitoring.** An ambient monitoring station located on site (Site No. 2) includes monitors for particulate matter less than 10 micrometers in diameter (PM_{10}), particulate matter 2.5 micrometers in diameter and smaller ($PM_{2.5}$), and SO_2 . All monitors located at Site No. 2 shall continue to be operated by Duke Energy Florida (DEF) and DEF will continue reporting data from these monitors as required by Special Condition 1.A.2 of the Conditions of Certification. New or existing monitoring devices shall be located as

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

designated by the Department. The monitoring devices for sulfur dioxide shall meet the requirements of 40 CFR 53. [PPSC PA 77-09, and order modifying conditions of certification, OGC Case No. 83-0818, dated February 2, 1984, and Rules 62-213.440 and 62-296.405(1)(c)3., F.A.C.; Department letter dated July 23, 2008]

- B.21. Fuel Monitoring – Units 4 and 5.** The permittee shall continuously monitor each fuel to determine the heat input rates to Units 4 and 5. (See Specific Condition **B.41.**). [Permit No. 0170004-037-AC (PSD-FL-383F) Specific Condition A.23.]
- B.22. Control Device Parametric Monitoring.** The following parameters related to the operation of the control devices shall be continuously monitored (see also Specific Condition **B.42.**).
- a. *SCR System.* The permittee shall continuously monitor the ammonia injection rate of the SCR control system.
 - b. *FGD System.* The permittee shall continuously monitor the limestone slurry injection rate of the FGD control system.
 - c. *AMM Systems.* The permittee shall continuously monitor the hydrated lime or ammonia injection rate of the AMM systems. Operation of the AMM systems shall be determined by the automated control system, which shall be set in accordance with the preliminary performance and compliance tests for SAM emissions.
 - d. *ESP.* The permittee shall continuously monitor the opacity in the ductwork just after the ESP for use as part of the Compliance Assurance Monitoring Plan (see Appendix CAM). Operation of the ESP shall be based upon COMS data collected during satisfactory PM emissions compliance tests.
[Permit No. 0170004-037-AC (PSD-FL-383F), Specific Condition A.25.]
- B.23. Operating Protocols for the AMM Systems.** The permittee shall operate the AMM systems in accordance with the operating protocol determined by the performance tests. Using the following procedures, the permittee may conduct additional SAM performance tests to establish a new operating protocol for the AMM system due to changes with the fuel blends, control equipment, operating methods or other circumstances.
- a. For each set of operating conditions being evaluated, the permittee shall conduct at least a 1-hour test run to determine SAM emissions. At least nine test runs shall be conducted to evaluate the effect of SAM emissions on parameters such as: the SO₂ emissions rate prior to the SCR catalyst, the unit load, the flue gas flow rate, the ammonia and/or hydrated lime injection rate, the current catalyst oxidation rate, and the operating level of the FGD system.
 - b. Tests shall be conducted with the fuel blends and load rates that are representative of the actual operating ranges intended for Units 4 and 5. Sufficient tests shall be conducted to establish the SAM emissions rates under varying operating conditions and levels of ammonia and/or hydrated lime injection (e.g., bypass of the SCR reactor, SCR reactor in service without ammonia and/or hydrated lime injection, SCR reactor in service, etc.).
 - c. At least 15 days prior to initiating the performance tests, the permittee shall submit a test notification, preliminary test schedule and test protocol to the Office of Permitting and Compliance and to the Compliance Authority.
 - d. Within 45 days following the last test run conducted, the permittee shall provide a report summarizing the emissions tests and results. All SAM emissions test data shall be provided with this report.
 - e. Within 45 days following the submittal of the performance test report and no later than 90 days following the last test run conducted, the permittee shall submit an operating protocol summarizing the following: identify each set of operating conditions evaluated; identify each operating parameter evaluated; identify the relative influence of each operating parameter; describe how the automated control system will adjust the ammonia injection rate based on the selected parameters; identify the frequency with which operational parameters will be reevaluated and adjusted within the automated control system; provide a description of the algorithm used for the automated control system or a series of related performance curves; and provide details for calculating and estimating the SAM emissions rate based on the level of ammonia injection and operating conditions. The performance tests shall be used to set the AMM control

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

systems and estimate SAM emissions.
[Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0170004-037-AC (PSD-FL-383F), Specific Condition A.16.]

Continuous Monitoring Requirements

- B.24. Required Continuous Monitoring Systems (CMS).** Continuous monitoring systems are required for SO₂, NO_x, CO₂ and opacity. Each COMS and CEMS shall be located such that representative measurements of emissions or process parameters from the facility are obtained. The monitors shall be operated and maintained in accordance with the existing requirements of 40 CFR 60.45, as well as the provisions of the federal acid rain program. [40 CFR 60.45; PPSC PA 77-09; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.13.]
- B.25. Continuous Opacity Monitoring Systems (COMS) for Periodic Monitoring.** Periodic monitoring for opacity shall be COMS, which are maintained and operated in conformance with 40 CFR Part 75. [Rule 62-213.440, F.A.C.]
- B.26. CO CEMS.** For Units 4 and 5, the permittee shall properly calibrate, operate and maintain CEMS to measure and record CO emissions in the terms of the applicable standard. Each CEMS shall be located such that representative measurements of emissions or process parameters from the facility are obtained in accordance with the procedures contained in the applicable performance specification of 40 CFR Part 60, Appendix B. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.14.]

Test Methods and Procedures

- B.27. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

EPA Method	Description of Method and Comments
1 - 4	Methods for Determining Traverse Points, Velocity, Flow Rate, Gas Analysis, and Moisture Content. These methods shall be performed as necessary to support other methods.
5	Determination of Particulate Emissions from Stationary Sources.
5B	Determination of Nonsulfuric Acid Particulate Matter from Stationary Sources.
6	Determination of Sulfur Dioxide Emissions from Stationary Sources.
6A	Determination of Sulfur Dioxide, Moisture, and Carbon Dioxide Emissions From Fossil Fuel Combustion Sources.
6B	Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions From Fossil Fuel Combustion Sources.
6C	Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure).
7	Determination of Nitrogen Oxide Emissions from Stationary Sources.
7A	Determination of Nitrogen Oxide Emissions from Stationary Sources - Ion Chromatographic Method.
7C	Determination of Nitrogen Oxide Emissions from Stationary Sources - Alkaline-Permanganate/Colorimetric Method.
7D	Determination of Nitrogen Oxide Emissions from Stationary Sources - Alkaline-Permanganate/Ion Chromatographic Method.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

EPA Method	Description of Method and Comments
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrument Analyzer Procedure).
8 or 8A	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emission from Stationary Sources.
9	Visual Determination of the Opacity of Emissions from Stationary Sources.
10	Method for Determining Carbon Monoxide Emissions (Instrumental). The method shall be based on a continuous sampling train.
18	Method for Determining Gaseous Organic Compound Emissions (Gas Chromatography). Concurrently with EPA Method 25A, EPA Method 18 may be used as an optional method to deduct emissions of methane and ethane from the total hydrocarbon (THC) emissions measured by Method 25A.
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization).
CTM-027	Procedure for Collection and Analysis of Ammonia in Stationary Source. This is an EPA conditional test method with a minimum detection limit of 1 ppm. Other equivalent methods may be used.
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.).
ASTM Method D2015-77, D240-76, D1826-77, ASTM D2013-72, ASTM D3177-75, and ASTM D4239-85, or latest ASTM edition	Standard Methods by the American Society of Testing and Materials for fuel analysis.

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.; 40 CFR 60 Subpart D; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.18.]

B.28. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

B.29. Annual Compliance Tests Required. Except as provided in Specific Condition **B.36.**, during each federal fiscal year (October 1st to September 30th), each EU003 and EU004 shall be tested to demonstrate compliance with the emissions standards for ammonia slip, opacity, PM, and SAM. [Rule 62-297.310(7), F.A.C.; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.19.b.]

B.30. Compliance Tests Prior To Renewal. Except as provided in Specific Condition **B.36.**, in addition to the annual compliance tests specified above, during the year prior to submitting an application for permit renewal, compliance tests shall also be performed for VOC to demonstrate compliance with the emission limits in Specific Condition **B.12.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.19.b.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

- B.31. Compliance Testing Required.** The owner or operator shall conduct emission testing in accordance with the requirements of 40 CFR 60.46. [40 CFR 60.46]
- B.32. Compliance by CEMS.** Compliance with the standards for emissions of CO, NO_x, and SO₂ shall be demonstrated with data collected from the required continuous monitoring systems. The permittee shall comply with the conditions of Appendix F - Standard Continuous Monitoring Requirements of this permit as the compliance method for the corresponding emissions standards. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.15.]
- B.33. SO₂ - Fuel Analysis.** The permittee shall demonstrate compliance with the SO₂ limit in specific condition **B.8.a.** by means of a fuel analysis provided by the vendor or the permittee upon each fuel delivery. See specific condition **B.34.** [Rule 62-213.440, F.A.C.; Permit No. 0170004-006-AC]
- B.34. SO₂ - Alternate Fuel Sampling.** The following fuel sampling and analysis program shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the fuel sulfur standard:
- Methods.* Determine and record the as-fired fuel sulfur content, percent by weight, for coal using appropriate ASTM methods such as, ASTM D2013-72, ASTM D3177-75, and ASTM D4239-85, or latest ASTM edition methods, to analyze a representative sample of coal following each fuel delivery.
 - Recordkeeping.* Record daily the amount of coal fired, the density of each fuel, the Btu value, and the percent sulfur content by weight of each fuel.
 - Calculations.* Utilize the information in a. and b., above, to calculate the SO₂ emission rate to ensure compliance at all times.
- [Rule 62-213.440, F.A.C.; Permit No. 0170004-006-AC]
- B.35. VE.** The test method for VE shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C. and referenced in Chapter 62-297, F.A.C. [Rules 62-296.405(1)(e)1. and 62-297.401, F.A.C.]
- B.36. When PM Tests Not Required.** Annual and permit renewal compliance testing for particulate matter emissions is not required for emissions units 003 and 004 while burning:
- only gaseous fuel(s); or
 - gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
 - only liquid fuel(s) for less than 400 hours per year.
- [Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]
- B.37. Additional Compliance Test requirements.**
- Test Fuel.* Initial compliance tests were to have been conducted with the highest sulfur content representative of the actual coal blends being fired. Within 60 days of determining that the fuel sulfur content of the actual coal blends fired have increased by 0.5% by weight or more from the highest tested sulfur content that demonstrated compliance, the permittee shall conduct new tests to determine emissions of opacity, PM and SAM. For purposes of this condition, the fuel sulfur content shall be based on an average of the as-fired fuel samples for 30 successive operating days. Once compliance has been demonstrated at the higher fuel sulfur levels (2.63% to 3.13% sulfur by weight), subsequent tests shall be conducted using a fuel with a sulfur content that is representative of the actual coal blends being fired.
 - Operational Data for Tests.* When compliance tests are conducted, for each test run, the permittee shall monitor and record the following information: fuel feed rate; heat input rate; sulfur content of fuel; the ammonia injection rate of the SCR control system; the limestone slurry injection rate of the FGD control system; lime or ammonia injection rate of the AMM systems; flue gas oxygen content (%); CO, NO_x, and SO₂ CEMS emissions data; and opacity data.
- [Permit Nos. 0170004-023-AC (PSD-FL-383C, Specific Conditions 3.A.19.c. & d. and 3.A.20., and 0170004-037-AC (PSD-FL-383F), Specific Condition A.20.)]

Recordkeeping and Reporting Requirements

- B.38. Reporting Schedule.** The following reports and notifications shall be submitted to the Compliance Authority:

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units 003, 004

Report	Reporting Deadline	Related Condition(s)
Notice of Excess Emissions	Postmarked by the 30 th day following the end of each six-month period	B.18. and B.39.

[Rule 62-213.440, F.A.C.]

B.39. Excess Emission Reports. Excess emissions, as defined in 40 CFR 60.45(g), shall be reported in accordance with the requirements of 40 CFR 60.45(g). [40 CFR 60.45(g)]

B.40. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

B.41. Fuel Monitoring - Units 4 and 5. Using the existing operating data system, the permittee shall continuously monitor each fuel to determine the heat input rates to Units 4 and 5. The heat input rates shall be calculated from the amounts of fuel fired and the higher heating value (HHV) of each fuel as determined by vendor certifications or the regular sampling and analysis required by the current Title V permit. Data shall be reduced to 1-hour blocks, 24-hour blocks (midnight-to-midnight), and 30-day rolling averages (average of all the 1-hour blocks for 30 operating days). [Permit No. 0170004-023-AC (PSD-FL-383C), Specific Condition 3.A.23.]

B.42. Control Device – Record Keeping for Parametric Monitoring.

- SCR System.** The permittee shall continuously monitor and record the ammonia injection rate of the SCR control system. Data shall be reduced to 1-hour block averages.
- FGD System.** The permittee shall continuously monitor and record the limestone slurry injection rate of the FGD control system. Data shall be reduced to 1-hour block averages.
- AMM Systems.** The permittee shall continuously monitor and record the hydrated lime or ammonia injection rate of the AMM systems. Data shall be reduced to 1-hour block averages. Operation of the AMM systems shall be determined by the automated control system, which shall be set in accordance with the preliminary performance and compliance tests for SAM emissions.
- ESP.** The permittee shall continuously monitor and record the opacity in the ductwork just after the ESP for use as part of the Compliance Assurance Monitoring Plan under Title V. Operation of the ESP shall be based upon COMS data collected during satisfactory PM emissions compliance tests.

[Rule 62-212.400 (BACT), F.A.C.; Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Conditions 3.A.25.a, b., c. & d., and 0170004-037-AC (PSD-FL-383F), Specific Condition A.25.c.]

Other Requirements

B.43. These emissions units are also subject to condition **J.1.** contained in **Subsection J. Used Oil Common Condition.**

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units 006, 008, 009, 010

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
006	Fly ash transfer (Source 1) from FFSG Unit 1
008	Fly ash storage silo (Source 3) for FFSG Units 1 and 2
009	Fly ash transfer (Source 4) from FFSG Unit 2
010	Fly ash transfer (Source 5) from FFSG Unit 2

Emissions unit 006 (EU006) is a fly ash transfer (Source 1) from FFSG Unit 1. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the FFSG Unit 1 electrostatic precipitator (ESP) to the fly ash storage silo (Source 3) at a design transfer rate of 44 tons per hour. PM emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 1,820 acfm.

Emissions unit 008 (EU008) is a fly ash storage silo (Source 3) for FFSG Units 1 and 2. This emissions unit consists of the fly ash storage silo used to store fly ash from the ESP of FFSG Units 1 and 2. Fly ash is pneumatically conveyed from the FFSG Units 1 and 2 ESPs at a combined transfer rate of 174 tons per hour. PM emissions are controlled by a Pulse King Model M 100 S baghouse at a design air flow of 2,546 acfm. Fly ash from the storage silo is disposed of either in a dry form by loading into enclosed tanker trucks or in a wet form by loading wet ash into open trucks.

Emissions unit 009 (EU009) is a fly ash transfer (Source 4) from FFSG Unit 2. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the FFSG Unit 2 ESP number 2C to the fly ash storage silo (Source 3) at a design transfer rate of 60 tons per hour. PM emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 2,200 acfm.

Emissions unit 010 (EU010) is a fly ash transfer (Source 5) from FFSG Unit 2. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the FFSG Unit 2 ESP number 2A and 2B to the fly ash storage silo (Source 3) at a maximum design transfer rate of 70 tons per hour. PM emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 2,800 acfm.

{Permitting note(s): These emissions units are regulated under Best Available Control Technology (BACT) Determinations ordered 2/5/79 (proposed 1/26/79) and 8/16/79.}

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The transfer rates shall not exceed:

EU No.	Transfer Rate (tons per hour)
006	44
008	174
009	60
010	70

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.]

C.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

C.3. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units 006, 008, 009, 010

C.4. Additional Reasonable Precautions for Control of PM Emissions. The owner or operator shall take the following reasonable precautions to control emissions of PM from transport of ash from EU008 for disposal or use:

- a. Ash for transport shall be wetted before loading into open trucks,
- b. Dry ash shall be transferred to enclosed tanker trucks.

[Permit No. AC09-256791]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **C.5. – C.6..** are based on the specified averaging time of the applicable test method.

C.5. PM Emission Limitations. Emissions of particulate matter from the following emissions units shall not exceed:

EU No.	Emission Limit (pounds per hour)	Emission Limit (tons per year)
006	3.5	15.4
008	0.6	2.6
009	2.2	9.6
010	2.2	9.6

[Permit No. AC09-256791; BACT Determinations dated 2/5/79 and 8/16/79]

C.6. VE. VE from each of the Units 1 and 2 flyash handling system baghouse exhaust stacks shall not exceed 5% opacity. See Specific Condition **C.13.** [Permit No. AC09-256791; BACT Determinations dated 2/5/79 and 8/16/79]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

C.7. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

C.8. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

C.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
22	Visual Determination of Fugitive Emissions from material Sources and Smoke Emissions from Flares

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [62-297.401, F.A.C., Permit No. AC09-256791]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units 006, 008, 009, 010

- C.10. Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- C.11. Annual Compliance Tests Required.** During each federal fiscal year (October 1st to September 30th), each EU006, EU008, EU009 and EU010 shall be tested to demonstrate compliance with the emissions standards for VE. [Rule 62-297.310(7), F.A.C. and Permit No. AC09-256791]
- C.12. Compliance Tests Prior To Renewal.** Compliance tests shall be performed for VE once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions C.6. [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]
- C.13. VE in Lieu of Stack Test.** Due to the expense and complexity of conducting a stack test on minor sources of PM and because the ash handling system emissions units are controlled with baghouses, the Department, pursuant to Rule 62-297.620(4), F.A.C. will consider compliance with 5% VE limitation (See Specific Condition C.6.) as reasonable assurance of compliance with the PM emission limitations in Specific Condition C.5. in lieu of particulate stack tests. If the Department has reason to believe that the particulate emission standard applicable to each emissions unit (006, 008, 009 and 010) is not being met, it may require that compliance be demonstrated by stack testing in accordance with Chapter 62-297, F.A.C. [Permit No. AC09-256791; BACT Determination dated 2/5/79]
- C.14. VE.** Compliance for VE shall be demonstrated using EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C. and referenced in Rule 62-297, F.A.C.
- C.15. Specific VE Test Requirements.** Each test shall be a minimum of thirty minutes in duration. Separate VE tests shall be conducted on each of the baghouse filter/separate exhausts (total of four emission points to be tested). VE testing shall be conducted while transferring fly ash from both FFSG Units 1 and 2 to the silo (EU008) at the same time. The tests shall be conducted during a period when both FFSG Units 1 and 2 are operating at 90 to 100% of full load while soot blowing. A statement of the FFSG unit loads, verifying the tests were conducted during soot blowing, shall be submitted with the test reports. [Permit No. AC09-256791]

{Permitting note: For those emissions points containing a baghouse, the permittee shall perform and record the results of weekly qualitative observations of VE checks (e.g., Method 22) with follow-up Method 9 tests within 24 hours of any abnormal VE.}

Recordkeeping and Reporting Requirements

- C.16. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 014

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
014	Bottom Ash Storage Silo for FFSG Units 1 and 2

Emissions unit 014 (EU014) is a bottom ash storage silo for FFSG Units 1 and 2, with associated vacuum blower exhausts and bin vent filter (total of three emission points). This emissions unit consists of the system to collect and store bottom ash and economizer ash from both FFSG Units 1 and 2 at a total rate of 16 tons per hour (8 tons per hour from each FFSG unit) at an airflow rate of 2,200 standard cubic feet per minute (scfm) from each unit. Ash is conveyed by vacuum from each FFSG unit by a separate vacuum blower, with air and ash passing through a baghouse (filter/separator) where ash is deposited in the silo and air is exhausted through the vacuum blower. Air displaced in the silo is vented through an additional bag filter (the bin vent filter) at an airflow rate of 2,400 scfm. Ash stored in the silo is unloaded into trucks for sale, use or disposal at the on-site ash disposal facility. Ash will be wet via a pug mill before loading into open trucks, or dry ash will be transferred to enclosed tanker trucks.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.320, F.A.C., and by applicable requirements of AC09-235915.}

Essential Potential to Emit (PTE) Parameters

- D.1. Permitted Capacity.** The maximum rate of transfer of ash from Units 1 and 2 to the ash storage silo shall not exceed 16 tons per hour (8 tons per hour from each FFSG unit). [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Permit No. AC09-235915]
- D.2. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- D.3. Hours of Operation.** The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]
- D.4. Additional Reasonable Precautions for Control of PM Emissions.** The owner or operator shall take the following reasonable precautions to control emissions of particulate matter from transport of ash from EU014 for disposal or use:
- Ash for transport shall be wet via a pug mill before loading into open trucks,
 - Dry ash shall be transferred to enclosed tanker trucks.
- [Permit No. AC09-235915]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **D.5.** – **D.6.** are based on the specified averaging time of the applicable test method.

- D.5. PM Emissions.** The maximum allowable emission rate of PM from the bottom/economizer ash handling system for a maximum process transfer rate of 8 tons per hour per unit is 13.03 pounds per hour as set by the Process Weight Table contained within Rule 62-296.320(4), F.A.C. At lesser process rates the allowable emission rates can be determined from the appropriate equation. This limitation represents total combined PM emissions from the two filter/seperator exhausts and the bin vent filter exhaust. [Permit No. AC09-235915]
- D.6. VE Limitation.** Due to the expense and complexity of conducting a stack test on minor sources of PM, and because this ash handling system is equipped with baghouse control devices, the Department, pursuant to Rule 62-297.620(4), F.A.C., establishes a VE limitation not to exceed an opacity of 5% in lieu of a PM stack test. This limitation applies to emissions from the two filter/seperator exhausts and to the bin vent filter exhaust. [Permit No. AC09-235915]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 014

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

- D.7. Excess Emissions Allowed.** Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- D.8. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

- D.9. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.; Permit No. AC09-235915]

- D.10. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- D.11. Annual Compliance Tests Required.** During each federal fiscal year (October 1st to September 30th), EU014 shall be tested to demonstrate compliance with the emissions standards for VE. [Rule 62-297.310(7), F.A.C.; Permit No. AC09-235915]
- D.12. Compliance Tests Prior To Renewal.** Compliance tests shall be performed for VE once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **D.6.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.; Permit No. AC09-235915]
- D.13. VE.** Each emission point of EU014 shall demonstrate compliance using EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. The minimum requirements for stationary point source emission test procedures shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60 Appendix A. [Permit No. AC09-235915]
- D.14. Specific VE Test Requirements.** The visible emissions test shall be a minimum of thirty minutes in duration. Separate VE tests shall be conducted on each the filter/separator exhausts and the bin vent filter exhaust (total of three emission points to be tested). Tests shall be conducted with both Units 1 and 2 transferring ash to the storage silo at the same time. A statement of the approximate ash transfer rate during the test shall be submitted with each test report. Failure to submit the process transfer rate and or operation under conditions that are not representative of normal operations may invalidate the test and fail to provide reasonable assurance of compliance. [Permit No. AC09-235915]

Recordkeeping and Reporting Requirements

- D.15. Reporting Ash Transfer Rate.** A statement of the approximate ash transfer rate during the test shall be submitted with each compliance test report. Failure to submit the process transfer rate and or operation under

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 014

conditions that are not representative of normal operations may invalidate the test and fail to provide reasonable assurance of compliance. [Permit No. AC09-235915]

D.16. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 012

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
012	Three relocatable diesel generator(s)

Emissions unit 012 (EU012) consists of three relocatable Caterpillar Model 3508-DITA 820 kilowatt (kW) diesel generators. Each relocatable diesel generator has a maximum heat input of 8.58 MMBtu/hr. Each generator is fueled by new No. 2 fuel oil per hour with a maximum rating of 820 kilowatts. Each generator has its own stack. Emissions from the generators are uncontrolled, and therefore, are not subject to CAM.

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. This section of the permit is only applicable when the generators are located at the Crystal River Power Plant. These relocatable generators were permitted in 1991 under permit No. AC09-202080.}

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The maximum (combined) allowable heat input rate and fuel firing rate is as follows:

EU No.	MMBtu/hr Heat Input	Gallons/hour	Fuel Type
012	8.58 (each generator)	62.1	New No. 2 Fuel Oil

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Permit No. AC09-202080.]

E.2. Methods of Operation – Fuels. Only new No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight, shall be burned in this unit. [Permit No. AC09-202080]

E.3. Hours of Operation. The hours of operation expressed as “engine-hours” shall not exceed 2,970 hours in any consecutive 12 month period. The total hours of operation expressed as “engine-hours” shall be the summation of the individual hours of operation of each generator. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Permit No. AC09-202080.]

E.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition **E.5. is** based on the specified averaging time of the applicable test method.

E.5. VE. VE shall not be equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.; Permit No. AC09-202080]

E.6. SO₂ - Sulfur Content. The new No. 2 fuel oil sulfur content shall not exceed 0.5%, by weight. [Permit No. AC09-202080]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

E.7. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 012

- E.8. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

- E.9. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
ASTM D1552-90 or later editions, ASTM D2622-94, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91, or later editions	Standard Test Methods for Sulfur in Petroleum Products

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, 62-297.401 and 62-297.440, F.A.C.]

- E.10. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- E.11. Annual Compliance Tests.** During each federal fiscal year (October 1st to September 30th), EU012 shall be tested to demonstrate compliance with the emissions standards for VE. Annual emissions compliance testing for visible emissions is not required for these emissions units while burning liquid fuels for less than 400 hours per year. [Rules 62-297.310(7), and 62-297.310(7)(a)4. & 8., F.A.C.]
- E.12. Compliance Tests Prior to Renewal.** Except as provided for in condition **TR7.** of Appendix TR, Testing Requirements, EU012 shall be tested for the following pollutant prior to obtaining a renewed operation permit: VE. [Rule 62-297.310(7)(a)3., F.A.C.]
- E.13. VE.** The test method for VE shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800. F.A.C., and referenced in Chapter 62-297, F.A.C. [Rule 62-297.310(4), F.A.C.; Permit No. AC09-202080]
- E.14. SO₂ – Sulfur Content Testing.** The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D1552-90 or later editions, ASTM D2622-94, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91, or later editions. In addition, any ASTM method (or later editions) referenced in Rule 62-297-440(1) F.A.C., or in 40 CFR 60.335 (b)(10) is acceptable. [Rules 62-213.440 and 62-297.440, F.A.C.]
- E.15. Fuel Sulfur Analysis.** The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor or permittee upon each fuel delivery. [Rule 62-213.440, F.A.C.]
- E.16. Testing after Relocation.** After each relocation, each generator shall be tested within 30 days of startup for opacity and the fuel shall be analyzed for the sulfur content to demonstrate compliance with the permit limits in this section. [Rules 62-4.070(3) and 62-297.310(7)(b), F.A.C.; Permit No. AC09-202080]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 012

E.17. Testing Operating Rate. Testing of each diesel generator emissions must be accomplished while operating the diesel generator within $\pm 10\%$ of the maximum fuel firing rate of 62.1 gallons per hour. Failure to submit the actual operating rate may invalidate the test. [Permit No. AC09-202080]

Recordkeeping and Reporting Requirements

E.18. Recordkeeping. The owner or operator shall maintain the following records:

- a. the daily hours of operation for each of the generators,
- b. the daily hours of operation expressed as “engine- hours”,
- c. the cumulative total hours of operation expressed as “engine-hours” for each month, and
- d. the sulfur content, in percent by weight, of all the fuel burned shall be kept based on either vendor provided as-delivered or as-received fuel sample analysis.

[Rules 62-213.440 and 62-297.310(8), F.A.C.; Permit No. AC09-202080]

E.19. Relocation Notification. The permittee shall notify the compliance authority, in writing, at least 15 days prior to the date on which any diesel generator is to be relocated. The notification shall specify the following;

- a. which generator, by serial number, is being relocated,
- b. which location the generator is being relocated from and which location it is being relocated to, and
- c. the approximate startup date at the new location.

[Permit No. AC09-202080]

E.20. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Other Requirements

E.21. PSD Avoidance. Specific conditions in construction permit AC09-202080, limiting the “engine hours”, were accepted by the applicant to escape Prevention of Significant Deterioration review. If Duke Energy Florida, Inc. requests a relaxation of any of the federally enforceable emission limits in this permit, the relaxation of limits may be subject to the preconstruction review requirements of Rule 62-212.400(4) – (12), F.A.C., as though construction had not yet begun. [Rule 62-212.400(12), F.A.C.; Permit No. AC09-202080].

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit 013

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
013	Cooling Towers for FFSG Units 1, 2 and Nuclear Unit 3

Emissions unit 013 (EU013) is cooling towers for FFSG units 1, 2 and nuclear unit 3, used to reduce plant discharge water temperature. (This emissions unit may be referred to as "helper cooling towers.") This emissions unit consists of four towers with nine cells per tower, with high efficiency (99.8%) drift eliminators, operating at a maximum seawater flow rate of 735,000 gallons per minute for all nine cells combined, with a design airflow rate of 1.46×10^6 acfm from each cell. Seawater is sprayed through the towers where fan induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions are controlled by high efficiency drift eliminators.

{Permitting note(s): This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (PSD permit AC09-162037/PSD-FL-139 issued 8/29/90) and Best Available Control Technology (BACT), Determination dated 8/29/90, which set a drift emission rate of 0.004%.}

Essential Potential to Emit (PTE) Parameters

- F.1. Hours of Operation.** The operating hours for each cooling tower pump shall not exceed 4,320 hours per year (12-month rolling total). [Rule 62-210.200(PTE), F.A.C.; and, Permit No. AC09-162037/PSD-FL-139]
- F.2. Drift Eliminators.** Drift eliminators shall be installed and maintained so that minimum bypass occurs. Regular maintenance shall be scheduled to ensure proper operation of the drift eliminators. [Rule 62-213.440, F.A.C.; and, Permit No. AC09-162037/PSD-FL-139]
- {Permitting Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets so visible emissions testing is not possible.}*
- F.3. Pump Run Time Meters Required.** Each cooling tower seawater pump shall be equipped each with a run-hour meters. [Rule 62-213.440, F.A.C.; and, AC09-162037/PSD-FL-139]
- F.4. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Conditions **F.5.** is based on the specified averaging time of the applicable test method.

- F.5. Cooling Tower Emission Limit.** The maximum allowable emissions of particulate matter from each cell (stack) is 11.89 lb/hr. This is based on a 0.004% drift rate (ratio of drift to the circulate rate) and the following table:

Flow Rate (gpm)	Total PM (from all 36 cells)		PM10	
	lbs/hr	TPY	lbs/hr	TPY
735,000	428	925	214	462

(PM₁₀ is approximately 50% of total PM)

[Permit No. AC09-162037/PSD-FL-139, BACT]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit 013

- F.6. Excess Emissions Allowed.** Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- F.7. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

- F.8. Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- F.9. Emission Test Method.** The drift elimination system on the helper cooling towers shall be maintained so as to minimize pluggage and to insure timely repair of broken sections of the drift eliminators. During the warm months when the helper cooling towers are used, the following work practice shall be implemented, in lieu of EPA Method 5, to demonstrate compliance with the originally designed removal efficiency (no more than 0.004% drift rate):
- Daily “walk down” inspection of each operational cell visually checking for problems with the drift eliminators such as pluggage, algae build-up, and mechanical components (fans and pumps).
 - Daily visual inspection of the cells which are in operation to ascertain the presence of higher than expected visible emissions when atmospheric conditions allow, and follow-up inspections and correction of problems when the daily visual inspection of the cells indicates a problem.
 - Weekly visual inspection of the inlet water screens and prompt correction when broken sections or pluggage is discovered.
- [Rule 62-213.440, F.A.C.; and, AC 09-162037 (PSD-FL-139); and, ASP No. 00-E-01 dated June 7, 2000]

Recordkeeping and Reporting Requirements

- F.10. Pump Run Logs.** A log shall be maintained of the hours of operation of each pump supplying salt water to the helper cooling towers. Pump flow rates shall be determined from the manufacturer’s certified pump curves, or any other equivalent method approved by the Department. [Rule 62-213.440, F.A.C.; Permit No. AC09-162037/PSD-FL-139]
- F.11. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection G. Emissions Unit 015

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
015	Cooling Towers for FFSG Units 4 and 5

Emissions unit 015 (EU015) is cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature. (These towers are hyperbolic cooling towers.) Seawater is sprayed through the towers where induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions controlled by high efficiency drift eliminators. Seawater flow rate is 331,000 gallons per minute.

{Permitting note(s): This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (PSD permit PSD-FL-007 issued by EPA as modified by EPA on 11/30/88.)}

Essential Potential to Emit (PTE) Parameters

- G.1. Permitted Capacity.** The maximum seawater flow rate shall not exceed 331,000 gallons per minute per cooling tower. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., 62-204.800, F.A.C.]
- G.2. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- G.3. Hours of Operation.** The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition(s) **G.4.** is based on the specified averaging time of the applicable test method.

- G.4. PM Emissions - Cooling Tower Emission Limit.** PM emissions shall not exceed 175 lb/hr from each cooling tower. [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

{Permitting Note: The emission limit is based on a BACT Determination requiring control of drift emissions with drift eliminators. The modified PSD permit removed a limitation on drift rate, substituting an emissions limit in pounds per hour. PM emissions are assumed to be all PM₁₀.}

{Permitting Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets so visible emissions testing is not possible.}

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

- G.5. Excess Emissions.** Should either tower emission rate exceed 175 lb/hr, the permittee shall:
- Notify EPA and the Department within 10 days of becoming aware of the exceedance.
 - Provide an assessment of necessary corrective actions and a proposed schedule of implementation within an additional 20 days.
 - Expediently complete corrective actions.
 - Retest the tower within three months after the correction is completed.
 - Submit the testing report within 45 days after completion of said tests.
- [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]
- G.6. Excess Emissions Allowed.** Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection G. Emissions Unit 015

- G.7. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

- G.8. Inspection.** The drift eliminators of both towers shall be inspected from the concrete walkways not less than every three months by Duke Energy Florida staff or representatives to assure that the drift eliminators are clean and in good working order. Not less than annually, a complete inspection of the towers shall be conducted by a qualified inspector with recognized expertise in the field. Certification that the drift eliminators are properly installed and in good working order shall be provided in the record keeping and reporting requirements noted below. [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88].

Test Methods and Procedures

- G.9. Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- G.10. Test Every Five Years.** The FFSG Unit 4 cooling tower shall be tested every five years from 1988 (the next required year from the effective date of this permit is 2013). The FFSG Unit 5 cooling tower shall be tested every five years from 1992 (the next required year from the effective date of this permit is 2012). [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]
- G.11. PM Emission Test Method.** Testing shall be in accordance with following requirements:
- PM emissions shall be measured by the sensitive paper method.
 - Testing shall be conducted either at the drift eliminator level within the tower or at the tower exit plane. (The sampling locations at the drift eliminator level and apparatus are shown in diagrams attached as Appendix P.)
 - No less than three test runs shall be conducted for each test and all valid data from each of these test runs shall be averaged to demonstrate compliance. No individual test run result shall determine compliance or noncompliance. The emission rate reported as a percent of the circulating water, as well as lb/hr., and total dissolved solids in the cooling tower basin and intake water, shall be reported for each test run. [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

Recordkeeping and Reporting Requirements

- G.12. Reporting.** Reports on tower testing and inspection shall be handled as follows:
- Maintained within onsite files within 30 days after all visual inspections of the drift eliminators.
 - Agency Submittal within 45 days after the compliance testing of either tower. [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]
- G.13. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Unit 016

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
016	Material handling activities for coal-fired steam units.

Emissions unit 016 (EU016) is material handling activities for coal-fired steam units. This emissions unit consists of a crane-operated clam-shell bucket mounted on a traveling gantry, enclosed conveyor belts, coal crushers and storage bunkers used for the storage and transport of coal, for FFSG Units 1, 2, 4 and 5. The barge unloading capabilities are 2,500 tons per hour and 32,000 tons per day. The speed of the conveyors and the crusher associated with boilers 1 and 2 is 900 tons per hour. This unit also encompasses fly ash and bottom ash handling equipment associated with Units 4 and 5 which are not addressed by other emissions units.

{Permitting notes: This emissions unit is regulated partially under Power Plant Siting Certification PA 77-09 (Units 4 and 5 only) and, is subject to NSPS 40 CFR 60 Subpart Y. This emissions unit is also regulated under permit number 0170004-014-AC (issued concurrently with this revised permit number 0170004-015-AV), which authorized the replacement of the barge unloading equipment to decrease the time required to unload coal barges, and the increase in conveying and crushing speeds of the equipment feeding coal to units 1 and 2.}

Essential Potential to Emit (PTE) Parameters

- H.1. Containment of Fugitive Emissions.** To the extent possible, the equipment that comprises the coal processing equipment at this facility (crushers, conveyors, drop points, and storage bunkers) shall be covered or enclosed at all times when the equipment is in operation. Except for the barge load-out and the stacker reclaimer sections of the conveying system that are required by design to be open, and which are not specifically subject to regulation under 40 CFR 60 Subpart Y, any other open section of the coal processing equipment shall be required to have any annual emission test conducted upon it. [Permit No. 0170004-014-AC]
- H.2. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- H.3. Hours of Operation.** The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition **H.4** is based on the specified averaging time of the applicable test method.

- H.4. VE.** The owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater, six minute average. [PPSC PA 77-09 (coal facilities associated with Units 1, 2, 4 and 5); and, Permit No. 0170004-014-AC]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

- H.5. Excess Emissions Allowed.** Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Unit 016

H.6. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

H.7. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C., Permit No. 0170004-014-AC]

H.8. Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

H.9. VE. (This condition applies to coal facilities associated with emissions units 001, 002, 004 and 003 -- FFSG Units 1, 2, 4 and 5.) When required by the Department, or annually as specified in Specific Condition **H.1.**, EPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity. [40 CFR 60.254; and, Permit No. 0170004-014-AC]

*{Permitting Note: Except as specified in Specific Condition **H.9.**, annual testing is not being required because the regulated emissions points are either enclosed or confined within a building.}*

{Permitting note: For those emissions points containing a baghouse (ash silos), the permittee shall perform and record the results of weekly qualitative observations of visible emissions checks (e.g., Method 22) with follow-up Method 9 tests within 24 hours of any abnormal visible emissions.}

Recordkeeping and Reporting Requirements

H.10. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection I. Emission Unit 020

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
020	Cooling towers for FFSG Units 1 and 2 used to reduce plant discharge water temperature.

Emissions unit 020 (EU020) is cooling towers for FFSG Units 1 and 2, used to reduce plant discharge water temperature. (This emission unit may be referred to as "portable cooling towers.") This emissions unit consists of 71 or 72 cells (dependent upon manufacturer), is 12' wide and 11' high, includes drift eliminators, operates at a maximum circulating seawater flow rate of 180,000 gallons per minute for all cells combined, and a design airflow rate of 25,000 acfm from each cell. Seawater is sprayed through the towers where fan induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions are controlled by drift eliminators.

{Permitting note(s): This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (permit 0170004-010-AC) and includes a Best Available Control Technology (BACT) Determination, which allows for a drift emission rate of 0.0015% with limited usage.}

Essential Potential to Emit (PTE) Parameters

I.1. Hours of Operation. The operating hours for the portable cooling towers shall not exceed an equivalent of 2,920 hours per year of operation (12-month rolling total). This condition shall be complied with by limiting the circulating water flow usage through the portable cooling towers to 31.5×10^9 gallons per calendar year. [Rule 62-210.200(PTE), F.A.C.; Permit No. 0170004-010-AC]

I.2. Drift Eliminators. Drift eliminators shall be installed and maintained as per the manufacturer's specifications. Regular maintenance shall be scheduled to ensure proper operation of the drift eliminators. [Rule 62-213.440, F.A.C.; Permit No. 0170004-010-AC]

{Permitting Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets, so visible emission testing is not possible.}

I.3. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **I.4. – I.5.** are based on the specified averaging time of the applicable test method.

I.4. Drift Rate. The portable cooling towers shall be designed, operated and maintained to achieve a drift rate of no more than 0.0015% of the circulating water flow. [Permit No. 0170004-010-AC]

I.5. PM Emissions. The drift rate standard in Specific Condition **I.4.** equates to an estimated emission rate of particulate matter (PM) from the cooling tower at 35.1 pounds per hour. [Permit No. 0170004-010-AC]

{Permitting Note: The emission limit is based on a BACT Determination setting the maximum drift emissions at 0.0015%. PM₁₀ emissions are estimated to be approximately 6% of the particulate matter emission rate.}

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

I.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection I. Emission Unit 020

- I.7. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

- I.8. Inspection Log.** Any problems detected during the work practice inspections identified in Specific Condition **I.10.** shall be documented in a log identifying the cell (or water screen), the inspector, the time (when discovered and the hours operated before the problem was corrected), and a description of the problem and the corrective actions taken. This log shall be maintained onsite and shall be made available to DEP upon request. The log shall be maintained so as to provide an indication as to whether routine inspections have been conducted as required even when there are no problems to record. [Rules 62-213.440 and 62-297.310(7), F.A.C., Permit No. 0170004-010-AC and ASP No. 00-E-01 dated June 7, 2000]

Test Methods and Procedures

- I.9. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- I.10. Emission Test Method.** The drift elimination system on the helper cooling towers shall be maintained so as to minimize pluggage and to insure timely repair of broken sections of the drift eliminators. During those calendar days when the portable cooling towers are used, the following work practice shall be implemented, in lieu of EPA Method 5, to demonstrate compliance with the originally designed removal efficiency (no more than 0.0015% drift rate):
- Walkdown Inspections.* Daily “walkdown” inspection of each operational cell visually checking for problems with the drift eliminators such as pluggage, algae build-up, and mechanical components (fans and pumps).
 - Visual Inspections.* Daily visual inspection of the cells which are in operation to ascertain the presence of higher than expected visible emissions when atmospheric conditions allow, and follow-up inspections and correction of problems when the daily visual inspection of the cells indicates a problem.
 - Weekly Inspections.* Weekly visual inspections of the inlet water screens and prompt correction when broken sections or pluggage is discovered.
- [Rule 62-213.440, F.A.C., Permit No. 0170004-010-AC; and ASP No. 00-E-01 dated June 7, 2000]

Recordkeeping and Reporting Requirements

- I.11. Circulating Water Flow-Meters Required.** Circulating water flow will be measured by monitoring the hours of each circulating water pump. For each hour of operation, each north pump will flow 15 thousand gallons per minute (kgpm) (900 thousand gallons per hour (kgph)) and each south pump will flow 4 kgpm (240 khph). The fans in bank C1 through C15 will be monitored for operation. If any of the fans are operating in those cells, the circulating water flow will be 39 kgpm (2,340 kgph). Partial hours of operation shall be prorated. Records of circulating water flow shall be maintained for each calendar month. [Rule 62-213.440, F.A.C.; Permit No. 0170004-10-AC]
- I.12 Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection J. Common Conditions

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
001	Fossil Fuel Steam Generator, Unit 1
002	Fossil Fuel Steam Generator, Unit 2
004	Fossil Fuel Steam Generator, Unit 4
003	Fossil Fuel Steam Generator, Unit 5

{Permitting Notes: The emissions units above are subject to the following condition which allows the burning of on-specification used oil pursuant to the requirements of this permit and this subsection.}

J.1. Used Oil. Burning of on-specification used oil is allowed in emissions units 001, 002, 004 and 003 in accordance with all other conditions of this permit and the following conditions:

- a. *On-specification Used Oil Allowed as Fuel.* This permit allows the burning of used oil fuel meeting EPA “on-specification” used oil specifications, with a PCB concentration of less than 50 ppm. Used oil that does not meet the specifications for on-specification used oil shall not be burned at this facility. On-specification used oil shall meet the following specifications: [40 CFR 279, Subpart B.]
 - (1) Arsenic shall not exceed 5.0 ppm,
 - (2) Cadmium shall not exceed 2.0 ppm,
 - (3) Chromium shall not exceed 10.0 ppm,
 - (4) Lead shall not exceed 100.0 ppm,
 - (5) Total halogens shall not exceed 1000 ppm,
 - (6) Flash point shall not be less than 100 degrees F.
- b. *Quantity Limited.* The maximum quantity of on-specification used oil that may be burned in all four emissions units combined is 10 million gallons in any consecutive 12-month period.
- c. *Used Oil Containing PCBs Not Allowed.* Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
- d. *PCB Concentration of 2 to less than 50 ppm.* On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.

Before accepting from each marketer the first shipment of on-specification used oil with a PCB concentration of 2 to 49 ppm, the owner or operator shall provide each marketer with a one-time written and signed notice certifying that the owner or operator will burn the used oil in a qualified combustion device and must identify the class of combustion device. The notice must state that EPA or a RCRA-delegated state agency has been given a description of the used oil management activities at the facility and that an industrial boiler or furnace will be used to burn the used oil with a PCB concentration of 2 to 49 ppm. The description of the used oil management activities shall be submitted to the EPA or may be submitted to the Administrator, Hazardous Waste Regulation Section, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. A copy of the notice provided to each marketer shall be maintained at the facility. [40 CFR 279.61 and 761.20(e)]

- e. *Certification Required.* The owner or operator shall receive from the marketer, for each load of used oil received, a certification that the used oil meets the specifications for on-specification used oil and contains a PCB concentration of less than 50 ppm. This certification shall also describe the basis for the certification, such as analytical results.

Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs. Note that a claim that used oil does not contain quantifiable levels of PCBs

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection J. Common Conditions

(that is, that the used oil contains less than 2 ppm of PCBs) must be documented by analysis or other information. The first person making the claim that the used oil does not contain PCBs is responsible for furnishing the documentation. The documentation can be tests, personal or special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the used oil contains no detectable PCBs.

- f. *Testing Required.* The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:
- (1) Arsenic, cadmium, chromium, lead, total halogens, flash point, PCBs*, and specific gravity.
 - (2) Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods), latest edition.
- * Analysis for PCBs is not required if a claim is made that the used oil does not contain quantifiable levels of PCBs.
- g. *Record Keeping Required.* The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department: [40 CFR 279.61 and 761.20(e)]
- (1) The gallons of on-specification used oil accepted and burned each month in each unit. (This record shall be completed no later than the fifteenth day of the succeeding month.)
 - (2) The total gallons of on-specification used oil burned in the preceding consecutive 12-month period in each unit. (This record shall be completed no later than the fifteenth day of the succeeding month.)
 - (3) Results of the analyses required above, including documentation if a claim is made that the used oil does not contain quantifiable levels of PCBs.
 - (4) The source and quantity of each batch of used oil received each month, including the name, address and EPA identification number (if applicable) of all marketers that delivered used oil to the facility, and the quantity delivered.
 - (5) Records of the operating rate of each unit while burning used oil and the dates and time periods each unit burns used oil.
- h. *Reporting Required.* The owner or operator shall submit to the Department's Southwest District office, with the Annual Operation Report form, an attachment showing the total amount of on-specification used oil burned during the previous calendar year. The quantity of used oil shall be individually reported and shall not be combined with other fuels.

[Rule 62-213.440, F.A.C.; 40 CFR 279 and 40 CFR 761; and Permit No. 0170004-002-AO]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection K. Emission Unit 023

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
023	Limestone and Gypsum Material Handling Activities

The flue gas desulfurization (FGD) systems include limestone storage and handling, limestone preparation, limestone slurry injection, and gypsum dewatering, transfer and storage. The limestone handling system receives, stores, sizes and transfers limestone to the FGD system's limestone preparation equipment. It receives limestone delivered to the plant by rear dump trucks unloading into aboveground truck unloading feeders with integral hoppers. The system consists of: a conveyor to transfer limestone received from truck unloading feeders; an unloading and the stacking belt conveyor to transfer limestone to a covered storage pile; a portal scraper reclaim and an emergency reclaim feeder; a reclaim conveyor to transfer limestone from the storage pile to a crusher feed belt conveyor, which transfers limestone to a crusher building for limestone sizing; a plant feed belt conveyor and silo feed belt conveyors to transfer limestone to the day silos.

The plant feed conveyor is equipped with a diverter gate and supplies limestone to the first limestone day silo (Silo B) directly via a chute and to the other limestone day silos (Silos A & C) using a reversible conveyor.

Limestone silos are equipped with a pulse-jet fabric filter dust collection system. Dust collectors are provided at each of the truck unloading feeders. A dust collection system is also provided for the crusher building. A water-fog dust suppression system is provided at the discharge point of the reclaim conveyor and at the tail end of the crusher feed conveyor to suppress the limestone dust formation.

The limestone preparation system includes wet ball mill grinding systems to produce limestone slurry. Filtrate-recycle water from the FGD system is used to prepare the limestone slurry to conserve make-up water. Fugitive dust emissions are minimized by enclosures and the addition of water for the slurry.

The gypsum slurry from the FGD system is delivered by bleed pumps to the dewatering system, which consists of a filter feed tank, hydro-cyclones, vacuum belt filters, vacuum pumps, filtrate tanks, filtrate pumps, lined piping, and associated valves. The incoming gypsum slurry contains approximately 18 to 22% suspended solids. Using a series of hydro-cyclones and three horizontal vacuum belt filters, the dewatering system removes water until the slurry contains approximately 90% solids. Filtrate removed from the slurry is stored and pumped back to the limestone preparation system or the absorber module. The de-watering system is located inside a building. Fugitive dust emissions are negligible because the system is enclosed and wet.

A collecting belt conveyor collects dewatered gypsum from the vacuum belt filters in the dewatering system. Under normal operating conditions, this conveyor feeds gypsum onto a system of conveyors, which transfer the gypsum onto a gypsum handling pad or to the future wallboard plant. The gypsum handling pad is located northeast of the dewatering facility and is used primarily (until the future adjacent wallboard facility is built) to store the gypsum until it can be transferred offsite for beneficial use or disposal. In addition, the gypsum handling pad may be used to store "off-specification" gypsum if needed. Fugitive dust emissions are minimal because the dewatered gypsum still contains approximately 10% water.

Essential Potential to Emit (PTE) Parameters

- K.1. Permitted Capacity.** The operational capacities of the material handling activities are not limited. For informational purposes, the maximum limestone processing rate is estimated at 100 tons per day. [Permit No 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.4.]
- K.2. Hours of Operation.** None of the emissions units in this subsection are restricted by hours of operation, they may operate continuously (8,760 hours/year). [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.4.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection K. Emission Unit 023**Control Technology**

K.3. To comply with the standards of this permit, the permittee shall operate and maintain the following air pollution control equipment.

Process Activity	Emissions Point No.	Control Device	Design Outlet Dust Loading Specification
Dry Limestone Handling System			
Limestone conveyors (general)	---	Covered	---
Limestone reclaim conveyor (discharge)	---	dust suppressant	---
Dump trucks	---	Covered	---
Two truck unloading feeders w/integral hoppers	EP-1A EP-1B	one dust collector per hopper	0.010 grains/dscf
Limestone storage	---	covered pile	---
Limestone crushing and sizing	EP-2	enclosed building w/baghouse	0.010 grains/dscf
Limestone silo feed conveyors and 3 Limestone day silos	EP-3	one dust collector	0.010 grains/dscf
Gypsum Dewatering System			
Gypsum dewatering system	---	enclosure/wet	---
Gypsum Handling System			
Gypsum handling system	---	enclosure/wet	---
Gypsum Handling Pad	---	water spray	---

Initial and replacement bags shall be selected based on the above design outlet dust loading specification. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.2.]

K.4. Fugitive Dust Emissions. The dry limestone handling and storage operations shall be enclosed to the extent practicable and confined to prevent fugitive dust emissions. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.3.]

Emission Limitations and Standards

K.5. Opacity Standard. As determined by EPA Method 9, visible emissions from each baghouse and dust collector exhaust point shall not exceed 5% opacity, based on a 6-minute average. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.5.]

K.6. Circumvention. The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.6.]

K.7. NSPS Subpart OOO Provisions. The limestone crushing activities are subject to the applicable requirements in NSPS Subpart OOO of 40 CFR 60. See Appendix NSPS, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants of this permit.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection K. Emission Unit 023

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

K.8. Test Methods. Required tests shall be performed in accordance with the following reference method:

EPA Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C. and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.11.]

K.9. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

K.10. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each baghouse exhaust point shall be tested to demonstrate compliance with the specified opacity standard. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.9.]

K.11. Test Method. Opacity tests shall be conducted in accordance with EPA Method 9, which is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.11.]

K.12. Test Procedures. Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C. The minimum observation period for a visible emissions compliance test shall be 30 minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. The permittee shall record the actual processing rate for the emissions unit being tested. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.12.]

Recordkeeping and Reporting Requirements

K.13. Operational Records. The owner or operator shall maintain the following records on site to demonstrate compliance with the specifications and limitations of this subsection.

- Records of the design outlet dust loading specifications for new and replacement fabric filter bags; and
- For each month, record the total limestone processed for the month and the previous 12 months.

All records shall be made available to the Department and Compliance Authority upon request. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.16.]

K.14. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection L. Emission Unit 033

The specific conditions in this section apply to the following new emissions unit:

EU No.	Concrete Batch Description
033	Concrete Batch Plant

Emissions Unit 033 is a concrete batch plant operation. Plant operations at the facility primarily consist of trucks delivering sand and aggregate to the site. Sand and aggregate will be stored in partially enclosed (covered and walled on three sides) stockpiles. The sand and aggregate will then be transferred to hoppers via front end loaders. Cement and cement additives will be stored in sealed silos, which will be equipped with bin vent filters. The aggregate and sand will pass through weigh hoppers and then mixed with cement, cement additives, and water to manufacture concrete. The mixing will occur in trucks.

This emissions unit is subject to the requirements of Rule 62-296.414 F.A.C., Concrete Batching Plants, which applies to facilities processing cement and other materials for the purposes of producing concrete. Emissions from this unit are particulate matter and visible emissions.

Equipment

L.1. Concrete Batch Plant. The permittee is authorized to operate a 20,000 cubic yard per year concrete batch plant. The use of a portable concrete batching plant that otherwise operates under the authority of a general permit pursuant to Rule 62-210.310(5), F.A.C. is allowed. However, while operating at this site, the conditions of this permit shall be complied with rather than the requirements of Rule 62-210.310(5), F.A.C. [Permit No. 0170004-034-AC, Specific Condition 1.]

{Note: Any permits or authorizations that a contracted operator may hold to operate these portable units at other sites will have no enforceable affect while the units are operating under the authority of this permit, nor are they in any way invalidated for future use when the units are relocated elsewhere.}

Essential Potential to Emit (PTE) Parameters

L.2. Hours of Operation. The concrete batch plant shall be allowed to operate 8,760 hours per year. [Permit No. 0170004-034-AC, Specific Condition 2.]

L.3. Capacity. The permittee shall not exceed the capacity listed for each piece of equipment. [Permit No. 0170004-034-AC, Specific Condition 3.]

L.4. Emission Related Equipment. The permittee shall operate and maintain all emission related equipment associated with this permit in accordance with manufacturer specifications. If manufacturer specifications are not available, the permittee shall develop and implement procedures for the proper operation and maintenance of each piece of equipment. A copy of the manufacturer specifications or the operation and maintenance plan shall be kept on site and made available to the Department upon request. [Permit No. 0170004-034-AC, Specific Condition 4.]

Emission Limitations and Standards

L.5. Stack Emissions. Emissions from silos, weigh hoppers (batchers), and other enclosed storage and conveying equipment shall be controlled to the extent necessary to limit visible emissions to 5 percent opacity, measured by EPA Reference Method 9. [Rule 62-296.414, F.A.C. and Permit No. 0170004-034-AC, Specific Condition 5.]

L.6. Unconfined Emissions. The owner or operator shall take reasonable precautions to control unconfined emissions from hoppers, storage and conveying equipment, conveyor drop points, truck loading and unloading, roads, parking areas, stock piles, and yards as required by paragraph 62-296.320(4)(c), F.A.C.

The following shall constitute reasonable precautions for these plants:

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

- a. Management of roads, parking areas, stock piles, and yards, which shall include one or more of the following:
 1. Paving and maintenance of roads, parking areas, and yards.
 2. Application of water or environmentally safe dust-suppressant chemicals when necessary to control emissions
 3. Removal of particulate matter from roads and other paved areas under control of the owner or operator to mitigate reentrainment, and from building or work areas to reduce airborne particulate matter.
 4. Reduction of stock pile height or installation of wind breaks to mitigate wind entrainment of particulate matter from stock piles.
 - b. Use of spray bar, chute, or partial enclosure to mitigate emissions at the drop point to the truck.
- [Rules 62-296.414 & 62-296.320(4)(c), F.A.C.; and, Permit No. 0170004-034-AC, Specific Condition 6.]

Test Methods and Procedures

L.7. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

L.8. Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this subsection shall comply with the following requirements.

- a. The reference test method for visible emissions shall be EPA Method 9, as described at 40 CFR, Part 60, Appendix A, adopted and incorporated by reference at Rule 62-204.800, F.A.C.
- b. Test procedures shall conform to the procedures specified in Rule 62-297.310, F.A.C. All test results shall be reported to the Department in accordance with the provisions of Rule 62-297.310, F.A.C.
- c. Visible emissions tests of silo dust collector exhaust points shall be conducted while loading the silo at a rate that is representative of the normal silo loading rate. The minimum loading rate shall be 25 tons per hour unless such rate is unachievable in practice. If emissions from the weigh hopper (batcher) operation are also controlled by the silo dust collector, the batching operation shall be in operation during the visible emissions test. The batching rate during the emissions test shall be representative of the normal batching rate and duration. Each test report shall state the actual silo loading rate during emissions testing and, if applicable, whether or not batching occurred during emissions testing.
- d. If emissions from the weigh hopper (batcher) operation are controlled by a dust collector which is separate from the silo dust collector, visible emissions tests of the weigh hopper (batcher) dust collector exhaust point shall be conducted while batching at a rate that is representative of the normal batching rate and duration. Each test report shall state the actual batching rate during emissions testing.

[Rule 62-296.414, F.A.C. and Permit No. 0170004-034-AC, Specific Condition 7]

L.9. Frequency of Testing. The owner or operator of any concrete batching plant operating under the authority of this permit shall have a performance test conducted for visible emissions for each dust collector exhaust point no later than thirty (30) days after commencing operation on-site, and annually thereafter. [Rule 62-296.414, F.A.C. and Permit No. 0170004-034-AC, Specific Condition 8.]

Record keeping and Reporting Requirements

L.10. Relocation Notification. Prior to relocating a portable concrete batching plant to this site, either DEF or the owner or operator of the contracted unit shall transmit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the Department's Southwest District Compliance Office at least five (5) business days prior to relocation. The notice shall identify the unit and estimate how long it will be onsite. The Department's Southwest District Compliance Office shall also be notified (by telephone, e-mail, fax, or written communication) upon removal of a portable concrete batching plant from this site. [Permit No. 0170004-034-AC, Specific Condition 10.]

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Operated by: Duke Energy Florida
ORIS Code: 0628

The emissions units listed below are regulated under Acid Rain, Phase II.

E.U. No.	EPA ID#	Brief Description
001	1	FFSG, Unit 1
002	2	FFSG, Unit 2
003	5	FFSG, Unit 5
004	4	FFSG, Unit 4

A.1. The Phase II Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the applications listed below:

- a. DEP Form No. 62-210.900(1)(a), dated 08/25/09, received 10/08/2009.
- b. DEP Form No. 62-210.900(1)(a)1, dated 08/25/09, received 10/08/2009.
- c. EPA Form 7610-28 (12-03), dated 08/25/09, received 10/08/2009.

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Nitrogen oxide (NO_x) requirements for each Acid Rain Phase II unit are as follows:

E.U. ID #	EPA ID	NO_x Limit
001	1	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO _x emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2010, 2011, 2012, 2013 and 2014. Under each plan, this unit's NO _x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.57 lb/MMBtu . In addition, this unit shall not have an annual heat input greater than 37,112,400 MMBtu . Also, see Additional Requirements a., b. and c., below.
002	2	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO _x emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2010, 2011, 2012, 2013 and 2014. Under each plan, this unit's NO _x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.57 lb/MMBtu . In addition, this unit shall not have an annual heat input greater than 42,602,400 MMBtu . Also, see Additional Requirements a., b. and c., below.
003	5	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO _x emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2010, 2011, 2012, 2013 and 2014. Under each plan, this unit's NO _x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.59 lb/MMBtu . In addition, this unit shall not have an annual heat input greater than 74,334,600 MMBtu . Also, see Additional Requirements a., b. and c., below.

SECTION IV. ACID RAIN PART.**Federal Acid Rain Provisions**

E.U. ID #	EPA ID	NO _x Limit
004	4	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO_x emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2010, 2011, 2012, 2013 and 2014. Under each plan, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.59 lb/MMBtu. In addition, this unit shall not have an annual heat input greater than 79,385,400 MMBtu. Also, see Additional Requirements a., b. and c., below.

Additional Requirements

- a. Under the plan (NO_x Phase II averaging plan), the actual Btu-weighted annual average NO_x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.
- b. In accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only after the North Carolina Department of Environmental and Natural Resources – Bureau of Air Quality, the Western North Carolina Regional Air Pollution Control Agency, and the South Carolina Department of Health and Environmental Control, have also approved this averaging plan.
- c. In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.

A.3. Sulfur dioxide (SO₂) Emission Allowances. SO₂ emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
- b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
- c. Allowances shall be accounted for under the Federal Acid Rain Program.
[Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]

A.4. Comments, notes, and justifications: None.

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: ☐ New ☐ Revised ☒ **Renewal**

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Crystal River	Fl.	628
Plant name	State	ORIS/Plant Code

STEP 2

Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO₂ Opt-in unit, enter "yes" in column "b".

For new units or SO₂ Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO ₂ Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO ₂ Opt-in Units Commence Operation Date	New or SO ₂ Opt-in Units Monitor Certification Deadline
1	No	Yes	N/A	N/A
2	No	Yes	N/A	N/A
4	No	Yes	N/A	N/A
5	No	Yes	N/A	N/A
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Crystal River

Plant Name (from STEP 1)

STEP 3

Read the standard requirements.

Acid Rain Part Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part.
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
 - (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
- (4) For applications including a SO₂ Opt-in unit, a monitoring plan for each SO₂ Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO₂ Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

Crystal River

Plant Name (from STEP 1)

**STEP 3,
Continued.**

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.

(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 76 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

STEP 4

**For SO₂ Opt-in
units only.**

In column "f" enter
the unit ID# for
every SO₂ Opt-in
unit identified in
column "a" of
STEP 2.

For column "g"
describe the
combustion unit
and attach
information and
diagrams on the
combustion unit's
configuration.

In column "h"
enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Crystal River

Plant Name (from STEP 1)

STEP 5

For SO₂ Opt-in units only.
(Not required for SO₂ Opt-in renewal applications.)

In column "i" enter the unit ID# for every SO₂ Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO ₂ Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO ₂ Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO ₂ Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO ₂ Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)
1					
2					
4					
5					

STEP 6

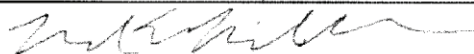
For SO₂ Opt-in units only.

Attach additional requirements, certify and sign.

- If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
- A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
- A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
- Attach a complete compliance plan for SO₂ under 40 CFR 72.40.
- The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
- The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Signature		Date
Certification (for designated representative or alternate designated representative only)		
I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.		
Name	Brenda E. Brickhouse	Title Director - Environmental Health and Safety
Owner Company Name Florida Power Corporation dba Progress Energy Florida, Inc.		
Phone	727 820 5153	E-mail address Brenda.brickhouse@pgnmail.com
Signature 		Date 8/25/09

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions



United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Phase II NO_x Compliance Plan

For more information, see instructions and refer to 40 CFR 76.11

NO_x Compliance - Page 1This submission is: ☐ New ☒ RevisedPage of

STEP 1

Indicate plant name, State, and ORIS code from NADB, if applicable

Crystal River	FL	628
Plant Name	State	ORIS Code

STEP 2

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

	ID# 1	ID# 2	ID# 4	ID# 5	ID#	ID#
	Type T	Type T	Type DBW	Type DBW	Type	Type
(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)	☐	☐	☐	☐	☐	☐
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)	☐	☐	☐	☐	☐	☐
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	☐	☐	☐	☐	☐	☐
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	☐	☐	☐	☐	☐	☐
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)	☐	☐	☐	☐	☐	☐
(f) Standard annual average emission limitation of 0.88 lb/mmBtu (for cell burner boilers)	☐	☐	☐	☐	☐	☐
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	☐	☐	☐	☐	☐	☐
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	☐	☐	☐	☐	☐	☐
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)	☐	☐	☐	☐	☐	☐
(j) NO _x Averaging Plan (include NO _x Averaging form)	☒	☒	☒	☒	☐	☐
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	☐	☐	☐	☐	☐	☐
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO _x Averaging (check the NO _x Averaging Plan box and include NO _x Averaging form)	☐	☐	☐	☐	☐	☐

EPA Form 7610-28 (12-03)

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Crystal River
Plant Name (from Step 1)

NO_x Compliance - Page 2
Page 2 of 2

STEP 2, cont'd

m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)

(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)

(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing

(p) Repowering extension plan approved or under review

ID#	ID#	ID#	ID#	ID#	ID#
Type	Type	Type	Type	Type	Type
☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign & date.

Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Brenda E. Brickhouse	
Name	
	8/25/09
Signature	Date

EPA Form 7610-28 (12-03)

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Florida Department of Environmental Protection

Phase II NO_x Averaging Plan

For more information, refer to 40 CFR 76.11

This submission is: ☐ New ☒ X Revised

STEP 1

Identify the units participating in this averaging plan by plant name, state, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit
Asheville	NC	1	0.46	0.15	9,773,847
Asheville	NC	2	0.46	0.15	9,627,813
Cape Fear	NC	5	0.040	0.35	6,185,400
Cape Fear	NC	6	0.040	0.35	7,612,800
H. F. Lee	NC	1	0.40	0.60	5,758,095
H. F. Lee	NC	2	0.46	0.50	5,649,210
H. F. Lee	NC	3	0.46	0.47	13,417,560

STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan

0.44

Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7

0.44

≤

$$\frac{\sum_{i=1}^n (R_{Li} \times HI_i)}{\sum_{i=1}^n HI_i}$$

≤

$$\frac{\sum_{i=1}^n [R_{Li} \times HI_i]}{\sum_{i=1}^n HI_i}$$

Where,

- R_{Li} = Alternative contemporaneous annual emissions limitation for unit i, in lb/mmBtu, as specified in column (b) of Step 1;
- R_{ai} = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;
- HI_i = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;
- n = Number of units in the averaging plan

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

STEP 3

Mark one of the two options and enter dates.

Crystal River Power Plant

Plant Name (from Step 1)

☒ X This plan is effective for calendar year 2010 through calendar year 2014 unless notification to terminate the plan is given.

☐ Treat this plan as ☐ identical plans, each effective for one calendar year for the following calendar years: _____, _____, _____, and _____ unless notification to terminate one or more of these plans is given.

STEP 4

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Special Provisions

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO_x under the plan only if the following requirements are met:

- (i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
 - (a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan.
 - (b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
- (ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
- (iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

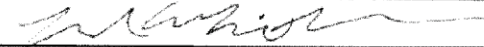
The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Brenda E. Brickhouse

Signature



Date

8/25/09

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Crystal River Power Plant

Plant Name (from Step 1)

STEP 1

Continue the identification of units from Step 1, page 1, here.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit
Mayo	NC	1A	0.46	0.15	16,685,025
Mayo	NC	1B	0.46	0.15	16,685,025
H.B. Robinson	SC	1	0.40	0.525	12,879,540
Roxboro	NC	1	0.46	0.145	16,254,975
Roxboro	NC	2	0.40	0.145	32,789,849
Roxboro	NC	3A	0.46	0.235	17,651,860
Roxboro	NC	3B	0.46	0.235	17,651,860
Roxboro	NC	4A	0.46	0.225	17,928,281
Roxboro	NC	4B	0.46	0.225	17,928,281
L.V. Sutton	NC	1	0.40	0.605	6,536,531
L.V. Sutton	NC	2	0.46	0.605	6,725,250
L.V. Sutton	NC	3	0.46	0.50	28,232,325
Weatherspoon	NC	1	0.46	1.00	3,746,925
Weatherspoon	NC	2	0.46	1.00	3,798,165
Weatherspoon	NC	3	0.40	0.65	6,141,480
Crystal River	FL	1	0.40	0.57	37,112,400
Crystal River	FL	2	0.40	0.57	42,602,400
Crystal River	FL	4	0.46	0.59	79,385,400
Crystal River	FL	5	0.46	0.59	74,334,600

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

Operated by: Duke Energy Florida
Plant: Crystal River Power Plant
ORIS Code: 628

The emissions units below are regulated under the Clean Air Interstate Rule.

EU No.	EPA Unit ID#	Brief Description
001	1	Fossil Fuel Steam Generator (FFSG) Unit 1
002	2	FFSG Unit 2
003	5	FFSG Unit 3
004	4	FFSG Unit 4

1. Clean Air Interstate Rule Application. The Clean Air Interstate Rule Part Form submitted for this facility is a part of this permit. The owners and operators of these CAIR units as identified in this form must comply with the standard requirements and special provisions set forth in the CAIR Part Form (DEP Form No. 62-210.900(1)(b)) dated March 16, 2008, which is attached at the end of this section. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]

Clean Air Interstate Rule Provisions

Clean Air Interstate Rule (CAIR) Part

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

This submission is: ☐ New ☒ Revised ☒ Renewal

STEP 1

**Identify the source by
plant name and ORIS
or EIA plant code**

Plant Name: CRYSTAL RIVER POWER PLANT	State: Florida	ORIS or EIA Plant Code: 628
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STEP 2

In column "a" enter the unit ID# for every CAIR unit at the CAIR source.

In columns "b," "c," and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).

For new units, enter the requested information in columns "e" and "f."

[illegible]DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

1

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

STEP 3

**Read the
standard
requirements.**

CRYSTAL RIVER POWER PLANT

Plant Name (from STEP 1)

CAIR NO_x ANNUAL TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO_x source and each CAIR NO_x unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved];
- (2) The owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source and each CAIR NO_x unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO_x source with the following CAIR NO_x Emissions Requirements.

NO_x Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 40 CFR 96.154(e) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.
- (2) A CAIR NO_x unit shall be subject to the requirements under paragraph (1) of the NO_x Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Requirements, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (4) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.
- (5) A CAIR NO_x allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR NO_x allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x unit.

Excess Emissions Requirements.

If a CAIR NO_x source emits NO_x during any control period in excess of the CAIR NO_x emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
 - (i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO_x unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program.
 - (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program.
- (2) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

**STEP 3,
Continued**

CRYSTAL RIVER POWER PLANT
Plant Name (from STEP 1)

Liability.

- (1) Each CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program.
- (2) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x source or the CAIR designated representative of a CAIR NO_x source shall also apply to the owners and operators of such source and of the CAIR NO_x units at the source.
- (3) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x unit or the CAIR designated representative of a CAIR NO_x unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source or CAIR NO_x unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR SO₂ TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved].
- (2) The owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR SO₂ source and each SO₂ CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO₂ source with the following CAIR SO₂ Emission Requirements.

SO₂ Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO₂ allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
- (2) A CAIR SO₂ unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO₂ Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
- (5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR SO₂ allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO₂ unit.

Excess Emissions Requirements.

If a CAIR SO₂ source emits SO₂ during any control period in excess of the CAIR SO₂ emissions limitation, then:

- (1) The owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

STEP 3,
Continued

CRYSTAL RIVER POWER PLANT
Plant Name (from STEP 1)

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.

(i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO₂ unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO₂ Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR SO₂ Trading Program.

(2) The CAIR designated representative of a CAIR SO₂ source and each CAIR SO₂ unit at the source shall submit the reports required under the CAIR SO₂ Trading Program, including those under 40 CFR Part 96, Subpart HHH.

Liability.

(1) Each CAIR SO₂ source and each CAIR SO₂ unit shall meet the requirements of the CAIR SO₂ Trading Program.

(2) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ source or the CAIR designated representative of a CAIR SO₂ source shall also apply to the owners and operators of such source and of the CAIR SO₂ units at the source.

(3) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ unit or the CAIR designated representative of a CAIR SO₂ unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO₂ Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO₂ source or CAIR SO₂ unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR NO_x OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall:

(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and

(ii) [Reserved];

(2) The owners and operators of each CAIR NO_x Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO_x Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO_x Ozone Season source with the following CAIR NO_x Ozone Season Emissions Requirements.

NO_x Ozone Season Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.

(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements starting on the later of May 1, 2008 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1),(2), or (3) and for each control period thereafter.

(3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.

(4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.

(5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x Ozone Season unit.

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

CRYSTAL RIVER POWER PLANT
Plant Name (from STEP 1)

**STEP 3,
Continued**

Excess Emissions Requirements.

If a CAIR NO_x Ozone Season source emits NO_x during any control period in excess of the CAIR NO_x Ozone Season emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
 - (i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Ozone Season Trading Program.
 - (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Ozone Season Trading Program.
- (2) The CAIR designated representative of a CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall submit the reports required under the CAIR NO_x Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

- (1) Each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit shall meet the requirements of the CAIR NO_x Ozone Season Trading Program.
- (2) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season source or the CAIR designated representative of a CAIR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_x Ozone Season units at the source.
- (3) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season unit or the CAIR designated representative of a CAIR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x Ozone Season source or CAIR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

STEP 4

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name: Patricia Q. West	Title: Manager, Environmental Services - Florida
Company Owner Name FLORIDA POWER CORPORATION DBA PROGRESS ENERGY FLORIDA, INC.	
Phone: 727.820.5739	E-mail Address: patricia.west@pgnmail.com
Signature <i>Patricia Q. West</i>	Date 7/23/09

SECTION VI. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.

Appendix ASP, ASP Number 97-B-01 (With Scrivener's Order Dated July 9, 1997).

Appendix CAM - Particulate Matter, Compliance Assurance Monitoring Plan for Units 001,002, 003 and 004 and Sulfuric Acid Mist (SAM) Compliance Assurance Monitoring Plan for Units 003 and 004.

Appendix F, Standard Continuous Monitoring Requirements.

Appendix I, List of Insignificant Emissions Units and/or Activities.

Appendix NSPS, Subpart A – General Provisions.

Appendix NSPS, Subpart D – Standards of Performance for Fossil Fuel Fired Steam Generators for which Construction is Commenced After August 17, 1971.

Appendix NSPS, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.

Appendix NSPS, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Appendix NSPS, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

Appendix NSPS, Subpart Y – Standards of Performance for Coal Preparation Plants.

Appendix NESHAP, Subpart A – General Provisions.

Appendix NESHAP, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Appendix RR, Facility-wide Reporting Requirements.

Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

Appendix U, List of Unregulated Emissions Units and/or Activities.

APPENDIX 10.6.3

NPDES PERMIT No. FL0000159



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**
BOB MARTINEZ CENTER
2600 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

Sent by E-mail to:
(Robby.Odom@duke-energy.com)

In the Matter of an
Application for Permit by:

Duke Energy Florida
Mr. Robby A. Odom
Plant Manager
Fossil Plant & Fuel Operations
15760 West Power line Street
Crystal River, Florida 34428

PA File No. FL0000159-014-IW1S
Citrus County
Crystal River Units 1, 2, and 3
NPDES Permit No. FL0000159

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number FL00000159 to Duke Energy Florida, Inc. authorizing wastewater discharge from Units 1, 2, and 3 at the Crystal River Energy Complex and ultimately to the Gulf of Mexico, a Class II marine water, issued under Section 403.0885, Florida Statutes, and DEP Rule 62-620, Florida Administrative Code.

Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any.

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Mark P. Thomasson, P.E.

Director

Division of Water Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed by certified mail before the close of business on 04-07-14 to the listed persons.

[Clerk Stamp]

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Shirley Shields 04-07-14
Clerk Date

Copies furnished by email to:

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**STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT**

PERMITTEE:
Duke Energy Florida, Inc. (DEF)

RESPONSIBLE OFFICIAL:
Mr. Robby A. Odom
Station Manager
Steam Plant & Fuel Operations
15760 Power Line Street, POC
Crystal River, FL 34428

PERMIT NUMBER: FL0000159 (Major)
FILE NUMBER: FL0000159-013-IW1S
ISSUANCE DATE: April 7, 2014
EXPIRATION DATE: April 6, 2019

FACILITY:

Crystal River Units 1, 2 and 3
15760 Power Line Street
Crystal River, FL 34428
Citrus County
Latitude: 25° 57' 27" N Longitude: 82° 41' 58" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. Compliance with Administrative Order AO024TL is a specific requirement of this permit. This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. The above named permittee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

FACILITY DESCRIPTION:

The Crystal River Energy Complex is an electric generating plant located on a 4,729 acre site near the mouth of Crystal River. The Crystal River Energy Complex consists of five steam electric generating units (Units 1, 2, 3, 4 and 5) with a total nameplate rating of 3,333.1 megawatts (MW). The surface water discharges from Units 4 and 5 are regulated under a separate wastewater permit (NPDES Permit No. FL0036366). Operation of an industrial wastewater treatment and disposal system to serve the facility is regulated under the Florida Electrical Power Plant Siting Act (License No. PA77-09). Units 1 and 2 are pulverized coal-fired steam electric generating units and Unit 3 is a nuclear fueled electric generating unit. However, Unit 3 has been shutdown since September 2009, and the permittee announced on February 5, 2013 that the unit is permanently retired. Units 1 and 2 have a combined total name plate rating of 964 MW. The facility discharge consists of once-through, non-contact condenser cooling water, treated nuclear auxiliary cooling water, treated coal pile rainfall run off, intake screen wash water, and treated non-radioactive wastewater/radiation wastewater.

The radioactive component of the discharge is regulated by the U.S. Nuclear Regulatory Commission under Atomic Energy Act and not by the U.S. Environmental Protection Agency under the Clean Water Act.

WASTEWATER TREATMENT:

Units 1 and 2 use once-through, noncontact cooling water (OTCW) withdrawn from and returned to Crystal Bay via the main intake and discharge canal at the facility. With the announced retirement of Unit 3 on February 5, 2013, this unit will no longer discharge OTCW from outfall D-013. Unit 3 has not discharged OTCW since September 2009. This permit authorizes an on-line mechanical condenser cleaning system, as well as use of oxidizing biocides, however, current practice is to remove Units 1 and 2 condensers out of service for manual cleaning.

Even with the announced retirement of Unit 3, the Nuclear Services and Decay Heat Seawater System, Station Drain Tank-1 (SDT-1) system (non-radwaste treatment system), Evaporator Condensate Storage Tanks (ECST) system (radwaste treatment system) and Laundry Shower and Sump Tanks (LSST) system will remain in operation during the upcoming permit cycle due to the continued operation of the spent fuel pool and other ancillary processes. The process wastewaters generated by these systems will continue to be discharged from Outfall D-00F.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

The SDT-1 system is comprised of two subsystems. One subsystem services the nuclear services closed-cycle cooling water system heat exchangers. The other services the decay heat closed-cycle cooling system heat exchangers.

The SDT-1 system uses oil-water separation to control oil and grease as well as mixing to aid in buffering pH. The treated wastewater is discharged by batch releases through internal outfall I-FG to outfall D-00F; or alternatively to the on-site industrial wastewater percolation pond under License No. PA 77-09P. The waste streams treated in this system include the following low volume wastes: turbine building sumps, equipment drains and floor drains; laboratory wastes from system evaluation; water supply and intermediate cooling system laboratory waste; water leakage from auxiliary plant systems; wastewater from hydrolasing activities; and miscellaneous secondary-side system drainage.

The ECST system uses an ion exchange system for pollution control. Spent resins are sluiced to a spent resin storage tank along with other spent resins (e.g., those used to polish water used for the spent fuel pool), whereby they are then disposed off-site. The treated sluice water is then discharged by batch releases through outfall D-00F.

The ECST system also includes a waste storage tank that receives low volume wastes from a number of sources consisting mostly of sump and floor drains within the reactor and auxiliary buildings. Note, these wastewaters are required to be monitored and meet limits for several radionuclides in accordance with the U.S. Nuclear Regulatory Commission under Atomic Energy Act and not by the U.S. Environmental Protection Agency under the Clean Water Act.

The LSST system consists of cartridge and bag filters to control total suspended solids. The treated wastewater is discharged by batch releases through internal outfall I-FE to outfall D-00F. The waste streams treated in this system include the following low volume wastes: laundry wash water; mop water; floor drain wastewater; laboratory wastewater from the primary, regent, and annex laboratories; leakage from auxiliary plant systems; and wastewater from hydrolasing activities.

Mechanical draft helper cooling towers (HCTs), located adjacent to site discharge canal, withdraw water directly from the main discharge canal to provide additional cooling. The noncontact, once-through cooling water is then returned to the discharge canal through Outfalls D-071 and D-072. In addition, the HCTs are authorized to inject an oxidizing biocide to control biofouling.

Outfalls D-091, D-092, D-093 and D-094 are discharges produced when water from the intake canal (for outfalls D-091, D-092 and D-093) and discharge canal (outfall D-094) is used to wash debris from the rotating traveling screens protecting the intake pumps at Units 1 and 2; the raw water pumps at Unit 3; and also the HCTs.

Runoff from the south coal pile storage area is captured in a collection ditch and pond system. This system has a single valved outfall. This outfall discharges to a marshy area south of the coal pile storage area. The valve is kept in the closed position, and only opened manually during emergency conditions to protect the berm integrity. Discharge may also be accomplished with the use of pumps during emergency conditions.

As per U.S. Nuclear Regulatory Commission directive, Unit 3 is required to maintain a backup, independently-powered, portable water supply pump to provide an emergency source of water for various activities such as firefighting, containment spray, flooding the spent fuel pool, etc. The directive also mandates that the pump be tested periodically. During testing events, which are required every two months, the pump is operated for approximately 30 minutes at 300 gpm producing a discharge of approximately 9,000 gallons of service water (treated groundwater), with an annual test using intake canal water (seawater). Water is discharged into the intake canal near the Unit 3 intake structure.

REUSE OR DISPOSAL:

Surface Water Discharge D-011: An existing discharge of Unit 1 OTCW to the Crystal River Energy Complex main discharge canal and thence to the Gulf of Mexico (WBID 8039), a Class II Marine Water. The point of discharge is located approximately at latitude 28° 57' 31.1" N, longitude 82° 42' 00.7" W.

Surface Water Discharge D-012: An existing discharge of Unit 2 OTCW to the Crystal River Energy Complex main discharge canal and thence to the Gulf of Mexico (WBID 8039), a Class II Marine Water. The point of discharge is located approximately at latitude 28° 57' 31.1" N, longitude 82° 42' 02.5" W.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

Surface Water Discharge D-091: An existing discharge of intake screen washwater to the site intake canal, through the discharge canal, and thence to the Gulf of Mexico (WBID 8039), a Class II Marine Water. The point of discharge is located approximately at latitude 28° 57' 24 " N, longitude 82°42 '0.4" W.

Surface Water Discharge D-092: An existing discharge of intake screen washwater to the site intake canal, through the discharge canal, and thence to the Gulf of Mexico (WBID 8039), a Class II Marine Water. The point of discharge is located approximately at latitude 28° 57' 23.2" N, longitude 82°42' 01.9" W.

Surface Water Discharge D-093: An existing discharge of intake screen washwater to the site intake canal, through the discharge canal, and thence to the Gulf of Mexico (WBID 8039), a Class II Marine Water. The point of discharge is located approximately at latitude 28° 57' 21.6" N, longitude 82° 41' 56.2" W.

Surface Water Discharge D-00F: An existing discharge of Nuclear Services and Decay Heat Seawater System effluent to the Crystal River Energy Complex main discharge canal and thence to the Gulf of Mexico (WBID 8039), a Class II Marine Water. The point of discharge is located approximately latitude 28° 57' 31.5" N, longitude 82° 41' 56.5" W.

Surface Water Discharge D-00H: An existing discharge of Coal Pile Runoff (Units 1 and 2) to an adjacent salt marsh and thence to the Gulf of Mexico (WBID 8039), a Class II Marine Water. The point of discharge is located approximately at latitude 28° 57' 08.8" N, longitude 82° 42' 12.7" W.

Surface Water Discharges D-071 and D-072: An existing discharge of OTCW from the helper cooling tower system to the Crystal River Energy Complex main discharge canal and thence to the Gulf of Mexico (WBID 8039), a Class II Marine Water. The point of discharge is located approximately at latitudes 28° 57' 34.2" N, longitude 82° 42' 32.5" W, and 28° 57' 35.2" N, longitude 82° 42' 48.8" W, respectively.

Surface Water Discharge D-094: An existing discharge of helper cooling tower intake screen washwater to the Crystal River Energy Complex main discharge canal and thence to the Gulf of Mexico (WBID 8039), a Class II Marine Water. The point of discharge is located approximately at latitude 28° 57' 34.4" N, longitude 82° 41' 30.4" W.

Surface Water Discharge D-095: An existing discharge from testing of the U.S. Nuclear Regulatory Commission required emergency backup water supply pump to the intake canal thence to the discharge canal, then to the Gulf of Mexico (WBID 8093), a Class II Marine Water. The point of discharge is located approximately at latitude 28° 57' 21.8" N, longitude 82° 41' 54.5" W.

Internal Outfall I-FG: An existing permitted discharge from the regeneration waste neutralization tank to Outfall D-00F.

Internal Outfall I-FE: An existing permitted discharge from the laundry and shower sump tank to Outfall D-00F.

Stormwater Discharges D-100, D-200, D-300, D-400, D-500, and D-600: Existing discharges of stormwater are authorized under a separate Department-issued NPDES Multi-Sector Generic Permit (MSGP), permit number FLR05H479 et.seq.

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions set forth in this Cover Sheet and Part I through Part IX on pages 1 through 28 of this permit.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 3, 2019

I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Surface Water Discharges

- During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge once-through non-contact condenser cooling water (OTCW) from **Outfalls D-011 and D-012 to the site discharge canal thence to the Gulf of Mexico**. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

Parameter	Units	Max/ Min	Effluent Limitations		Monitoring Requirements			Notes
			Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Continuous	Pump logs ^{1,2}	FLW-1	
Temperature, Water (Intake)	Deg. F	Max Max	Report Report	Daily Maximum Monthly Average	Continuous	Recorder	INT-1	See I.A.3
Temperature, Water (Discharge)	Deg. F	Max Max	96.5 Report	Daily Maximum Monthly Average	Continuous	Recorder	EFF-3D	See I.A.4
Temp. Diff. between Intake and Discharge	Deg. F	Max Max	Report Report	Daily Maximum Monthly Average	Continuous	Calculated	EFF 3D	
Chlorination Duration	min	Max Max	60.0 60.0	Daily Maximum Monthly Average	2/Week	Logs	EFF-1A EFF-1B	See I.A.5 & I.A.6
Oxidants, Total Residual	mg/L	Max Max	0.01 0.01	Daily Maximum Monthly Average	2/Week	Multiple Grabs	EFF-1A EFF-1B	See I.A.5 & I.A.6
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Quarterly	Grab	INT-1 EFF-3D	
Nitrite plus Nitrate, Total (as N)	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Quarterly	Grab	INT-1 EFF-3D	
Nitrogen, Total	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Quarterly	Grab	INT-1 EFF-3D	
Phosphorus, Total (as P)	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Quarterly	Grab	INT-1 EFF-3D	
Phosphate, Ortho (as PO ₄)	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Quarterly	Grab	INT-1 EFF-3D	

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

Monitoring Site Number	Description of Monitoring Site
FLW-1	Calculated combined flow from Outfalls D-011 and D-012.
EFF-1A	Outlet corresponding to individual condenser for Unit 1.
EFF-1B	Outlet corresponding to individual condenser for Unit 2.
INT-1	Intake at Unit 1.
EFF-3D	At the bulkhead line which is near the downstream end of the site discharge canal.

- In the event of an equipment failure of the temperature monitor or recorder at INT-1, temperature shall be monitored by similar instrumentation at INT-2, which is the intake for Unit 2. In such a situation, the permittee shall maintain records of the change in monitoring location for the monitoring period.
- The discharge temperature measured at monitoring location EFF-3D shall not exceed 96.5°F as a three hour rolling average.

¹ Flow is monitored by pump logs and/or valve position.

² Monitoring and reporting values for temperature, pump status and/or valve position shall be recorded at ten minute intervals.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

5. Total Residual Oxidants (TRO) means the value obtain using testing procedures for Total Residual Chlorine (TRC) found in 40 CFR 136.3.

Monitoring requirements for TRO are not applicable if an oxidant has not been added to the once-through cooling water system during the previous 7 days.

Multiple grab samples for TRO shall consist of grab samples collected at the beginning of the period of chlorination discharge, and once every 15 minutes, thereafter. In addition, one grab sample shall be collected at the end of the period of oxidant discharge.

6. Discharge of TRO from the condenser of each unit shall not exceed a maximum of 60 minutes in any calendar day, except as follows. TRO may be discharged from one or more individual condensers via Outfalls D-011 and D-012, provided that TRO discharge concentration is monitored continuously by recorder(s).
7. Intake screen wash water and discharge from testing of the Unit 3 emergency backup water supply pump may be discharged from Outfalls D-091, D-092, D-093, D-094, and D-095 without limitation or monitoring requirements.
8. The permittee shall not add any chemicals to the intake screen wash water.
9. Any discharge from the industrial wastewater (IWW) pond system via pumping or any emergency overflow structure which results from any event less than a 25 year, 24 hour storm (as defined by the U.S. Weather Bureau Technical Paper No. 40, or the DOT drainage manual, or similar documents) shall meet State Water Quality Standards, Chapter 62-302, F.A.C. If the potential for routine surface water discharges exists during events less than a 25-year, 24-hr storm, the permittee shall apply for coverage under this NPDES permit to cover such discharges. All discharges from the IWW pond system, including those resulting from events exceeding a 25 year, 24 hour storm, shall be subject to the bypass provisions of Section IX, Condition 22.
10. An emergency FGD blowdown treatment pond overflow exits to an Environmental Resource Permitted surface water management system (SWMS) that discharges to the site discharge canal. Discharges from this emergency FGD pond overflow into the SWMS shall be subject to the bypass provisions of Section IX. Condition 22.
11. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Nuclear Services and Decay Heat Seawater System effluent from **Outfall D-00F** [includes discharges from Outfall I-FE – Laundry and Shower Sump Tank; (LSST) Outfall I-FG – Station Drain Tank (SDT-1); and effluent from the Evaporator Condensate Storage Tank (ECST) **to the site discharge canal and thence the Gulf of Mexico**. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Hourly	Recorder or Calculated	INT-7A	
Flow (ECST)	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Daily, when discharging	Recorder or Calculated	EFF-7B	
Oil and Grease (ECST)[D-00F]	mg/L	Max Max	5.0 5.0	Daily Maximum Monthly Average	Weekly, when discharging	Grab	EFF-7	See I.A.13
Solids, Total Suspended (ECST)[D-00F]	mg/L	Max Max	100.0 30.0	Daily Maximum Monthly Average	Weekly, when discharging	Grab	EFF-7	See I.A.14
Copper, Total Recoverable	ug/L	Max Max	3.7 3.7	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-7	See I.A.15
Iron, Total Recoverable	ug/L	Max Max	300.0 300.0	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-7	See I.A.15

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Hydrazine	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Per Occurrence	Grab	EFF-7B	See I.A.16
		Max Max	0.341 0.341	Daily Maximum Monthly Average	Daily, when discharging	Calculated	EFF-7	See I.A.16, I.A.17
Hydroquinone	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Per Occurrence	Grab	EFF-7B	See I.A.16
		Max Max	0.12 0.12	Daily Maximum Monthly Average	Daily, when discharging	Calculated	EFF-7	See I.A.16, I.A.17
Total Ammonia (as N)	mg/ L	Max Max	Report Report	Daily Maximum Monthly Average	Per Occurrence	Grab	EFF-7B	See I.A.16
		Max Max	0.047 0.047	Daily Maximum Monthly Average	Daily, when discharging	Calculated	EFF-7	See I.A.16, I.A.17
Morpholine	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Per Occurrence	Grab	EFF-7B	See I.A.16
		Max Max	1.78 1.78	Daily Maximum Monthly Average	Daily, when discharging	Calculated	EFF-7	See I.A.16, I.A.17
pH	s.u.	Max Max	Report Report	Daily Maximum Daily Minimum	Daily, when discharging	In-situ	INT-7A	
		Max Max	8.5 6.5	Daily Maximum Daily Minimum	Daily, when discharging	In-situ	EFF-7	See I.A.18
Spectrus CT1300	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Per Application	Grab	EFF-7	See I.A.19
Chronic Whole Effluent Toxicity, 7-Day IC25 (Americamysis bahia)	percent	Min	100	Single Sample	Semi- annually	24-hr TPC	EFF-7	See I.A.20
Chronic Whole Effluent Toxicity, 7-Day IC25 (Menidia beryllina)	percent	Min	100	Single Sample	Semi- annually	24-hr TPC	EFF-7	See I.A.20

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

Monitoring Site Number	Description of Monitoring Site
INT-7A	Intake at Unit 3.
EFF-7	At the point of discharge to the site discharge canal.
EFF-7B	Prior to discharge to Outfall D-00F.

13. Monitoring requirements for oil and grease in the combined discharge (Outfall D-00F) are only applicable if the discharge from Outfalls I-FE and I-FG, or the ECST effluent (following adequate mixing) exceeds the daily maximum limitation of 20.0 mg/L or a minimal dilution rate of 4 to 1 is not achieved as determined by the operator and recorded in logs maintained onsite for inspection by the Department.
14. Monitoring requirements for total suspended solids in the combined discharge (Outfall D-00F) are only applicable if the discharge from Outfalls I-FE and I-FG, or the ECST (following adequate mixing) exceeds the daily maximum limitation of 100.0 mg/L or a minimal dilution rate of 4 to 1 is not achieved as determined by the operator and recorded in logs maintained onsite for inspection by the Department.
15. Limitations and monitoring requirements total recoverable copper and total recoverable iron are applicable only on any calendar day in which chemical metal cleaning waste is discharged in the effluent from I-FG and/or the Evaporator Condensate Storage Tank.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

16. Limitations for hydrazine, hydroquinone, total ammonia, and morpholine apply to the ESCT or I-FG discharge containing steam generator layup solution. One grab sample shall be taken from any batch potentially containing ≥ 1.0 mg/L of hydrazine, based on the operator's knowledge of the process. The measured concentrations of hydrazine, hydroquinone, ammonia and morpholine shall be reported monthly on the DMR.
17. The numeric limitations for hydrazine, hydroquinone, total ammonia, and morpholine apply at D-00F. The following calculation shall be used to determine the concentration of hydroquinone, hydrazine, ammonia and morpholine at D-00F.

$$\text{D-00F concentration (mg/L)} = \frac{(\text{measured concentration (mg/L)}) (\text{discharge flow})^*}{\text{Flow to D-00F}}$$

* The calculation could apply to any batch which potentially contains >1.0 mg/L of hydrazine.

18. Monitoring for pH in the combined discharge (D-00F) is required only during periods when I-FG is discharging. If no discharge from I-FG occurs, sampling shall be during next discharge of I-FG into the combined discharge at D-00F.
19. Spectrus CT1300 shall be used only in accordance with the following procedures:
- There will be an interval of at least 14 days between any two successive applications, unless more frequent applications are requested in writing and approved in writing by the Department within 14 days of receipt of the request.
 - CT1300 may be applied at a rate not to exceed 4.5 mg/L through the Unit 3 service water system. No application period may exceed 18 hours, unless approved in writing by the Department.
 - The permittee will record and retain the following information of each CT1300 treatment:
 - time of initiation and completion of treatment;
 - mass and concentration of CT1300 during the test period; and
 - results of toxicity testing, if applicable.
 - When toxicity testing is required, the permittee will submit the information specified in Permit Condition I.A.19.c above to the Department at the time of DMR submittal for the month in which treatment occurs.
20. Chronic toxicity testing requirements shall apply during those semi-annual time periods in which the permittee uses Spectrus CT1300 (Clamtrol): discharges steam generator layup solution containing Hydrazine, Morpholine, Hydroquinone, or Ammonia; or during discharge of other Department approved water treatment chemicals used to supplement or replace these additives. The permittee shall comply with the following requirements to evaluate chronic whole effluent toxicity of the discharge from Outfall D-00F.
- Effluent Limitation**
 - In any routine or additional follow-up test for chronic whole effluent toxicity, the 25 percent inhibition concentration (IC25) shall not be less than 100% effluent. *[Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.]*
 - For acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent in any test. *[Rule 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]*
 - Monitoring Frequency**
 - Routine toxicity tests shall be conducted once every six months, pursuant to the existing established schedule and lasting for the duration of this permit.
 - Sampling Requirements**
 - For each routine test or additional follow-up test conducted, a total of three 24-hour composite samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-013, Section 8.
 - The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.
 - Samples for routine and additional follow-up tests shall not be collected on the same day.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

d. Test Requirements

- (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: **100%, 50%, 25%, 12.5%, and 6.25%** final effluent.
 - (a) If the salinity of the effluent requires adjustment, a salinity adjustment control should be prepared and included with each bioassay. The salinity adjustment control is intended to identify toxicity resulting from adjusting the effluent salinity with artificial sea salts. To prepare the salinity adjustment control, dilute the control/dilution water to the salinity of the effluent and adjust the salinity of the salinity adjustment control at the same time and to the same salinity that the salinity of the effluent is adjusted using the same artificial sea salts.
- (2) The permittee shall conduct 7-day survival and growth chronic toxicity tests with the mysid shrimp, *Americamysis (Mysidopsis) bahia*, Method 1007.0, and the inland silverside, *Menidia beryllina*, Method 1006.0, concurrently.
- (3) All test species, procedures and quality assurance criteria used shall be in accordance with **Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms**, 3rd ed., EPA-821-R-02-014. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.
- (4) The control water and dilution water shall be artificial sea salts as described in EPA-821-R-02-014, Section 7.2. The test salinity shall be determined as follows:
 - (a) For the *Americamysis (Mysidopsis) bahia* bioassays, the effluent shall be adjusted to a salinity of 20 parts per thousand (ppt) with artificial sea salts. The salinity of the control/dilution water (0% effluent) shall be 20 ppt. If the salinity of the effluent is greater than 20 ppt, no salinity adjustment shall be made to the effluent and the test shall be run at the effluent salinity. The salinity of the control/dilution water shall match the salinity of the effluent.
For the *Menidia beryllina* bioassays, if the effluent salinity is less than 5 ppt, the salinity shall be adjusted to 5 ppt with artificial sea salts. The salinity of the control/dilution water (0% effluent) shall be 5 ppt. If the salinity of the effluent is greater than 5 ppt, no salinity adjustment shall be made to the effluent and the test shall be run at the effluent salinity. The salinity of the control/dilution water shall match the salinity of the effluent
 - (b) For the *Menidia beryllina* bioassays, if the effluent salinity is less than 5 ppt, the salinity shall be adjusted to 5 ppt with artificial sea salts. The salinity of the control/dilution water (0% effluent) shall be 5 ppt. If the salinity of the effluent is greater than 5 ppt, no salinity adjustment shall be made to the effluent and the test shall be run at the effluent salinity. The salinity of the control/dilution water shall match the salinity of the effluent.
 - (c) If the salinity of the effluent requires adjustment, a salinity adjustment control should be prepared and included with each bioassay. The salinity adjustment control is intended to identify toxicity resulting from adjusting the effluent salinity with artificial sea salts. To prepare the salinity adjustment control, dilute the control/dilution water to the salinity of the effluent and adjust the salinity of the salinity adjustment control at the same time and to the same salinity that the salinity of the effluent is adjusted using the same artificial sea salts.

e. Quality Assurance Requirements

- (1) A standard reference toxicant (SRT) quality assurance (QA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly chronic toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.
- (2) If the mortality in the control (0% effluent) exceeds 20% for either species in any test or does not meet "test acceptability criteria", the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-014, Section 14.12 (*Americamysis bahia*) and Section 13.12 (*Menidia beryllina*). The repeat test shall begin within 21 days after the last day of the invalid test.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

- (3) If 100% mortality occurs in all effluent concentrations for either test species prior to the end of any test and the control mortality is less than 20% at that time, the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non-compliance.
- (4) Routine and additional follow-up tests shall be evaluated for acceptability based on the observed dose-response relationship as required by EPA-821-R-02-014, Section 10.2.6., and the evaluation shall be included with the bioassay laboratory reports.

f. Reporting Requirements

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

Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Parkway
Temple Terrace, Florida 33637

g. Test Failures

- (1) A test fails when the test results do not meet the limits in 20.a.(1).
- (2) Additional Follow-up Tests:
 - (a) If a routine test does not meet the chronic toxicity limitation in 20.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 20.d.
 - (b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.
 - (c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, and 6.25% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be analyzed according to the procedures in EPA-821-R-02-013.
- (3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.
 - (a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.
 - (b) The Department shall review and approve the plan before initiation.
 - (c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
 - (d) Progress reports shall be submitted quarterly to the Department at the address above.
 - (e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 20.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 20.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-013, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

- (f) Upon completion of four consecutive, valid routine tests that demonstrate compliance with the effluent limitation in 20.a.(1) above, the permittee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive valid routine whole effluent toxicity tests. If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive valid tests for the purpose of terminating the plan.
- (4) If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 20.(1)(b), the Department may revise this permit to require acute definitive whole effluent toxicity testing.
- (5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity permit limit violations.

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

21. During the period beginning on the effective date of this permit and lasting through the expiration, the permittee is authorized to discharge Units 1 and 2 Coal Pile Runoff from **Outfall D-00H to the marshy area (wetlands) west of the coal pile storage area and thence to the Gulf of Mexico**. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Daily, when discharging	Calculated	EFF-9	
Solids, Total Suspended	mg/L	Max Max	50.0 50.0	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	See I.A.23
Aluminum, Total Recoverable	mg/L	Max Max	1.5 1.5	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Arsenic, Total Recoverable	ug/L	Max Max	36.0 36.0	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Beryllium, Total Recoverable	ug/L	Max	0.13	Annual Average	Daily, when discharging	Grab	EFF-9	
Cadmium, Total Recoverable	ug/L	Max Max	8.8 8.8	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Chromium, Total Recoverable	ug/L	Max Max	50.0 50.0	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Copper, Total Recoverable	ug/L	Max Max	3.7 3.7	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Iron, Total Recoverable	mg/L	Max Max	0.3 0.3	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Lead, Total Recoverable	ug/L	Max Max	8.5 8.5	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Mercury, Total Recoverable	ug/L	Max Max	0.025 0.025	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Nickel, Total Recoverable	ug/L	Max Max	8.3 8.3	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Selenium, Total Recoverable	ug/L	Max Max	71.0 71.0	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Zinc, Total Recoverable	ug/L	Max Max	86.0 86.0	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	
Vanadium, Total Recoverable	mg/L	Max Max	Report Report	Daily Maximum Monthly Average	Daily, when discharging	Grab	EFF-9	

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
pH	s.u.	Max	Report	Daily Maximum	Daily, when discharging	In-situ	INT-3B	
		Min	Report	Daily Minimum	Daily, when discharging	In-situ	EFF-9	
		Max	8.5	Daily Maximum				
		Min	6.5	Daily Minimum				

22. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.21 and as described below:

Monitoring Site Number	Description of Monitoring Site
EFF-9	Point of discharge from the treatment system prior to entering wetlands area.
INT-3B	Intake at Unit 2.

23. The treatment system (coal pile storage area) shall be capable of containing rainfall from a 10 year, 24-hour storm event. The limitation for total suspended solids of 50 mg/L shall apply only to discharges resulting from rainfall less than a 10-year, 24-hour rainfall event.

24. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge once-through non-contact cooling water from **Outfalls D-071 and D-072 Helper Cooling Tower to the site discharge canal and thence to the Gulf of Mexico**. Such discharge shall be limited and monitored by the permittee as specified below:

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (Intake)	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Continuous, When Discharging	Pump logs	INT-10A	
Oxidants, Total Residual	mg/L	Max Max	0.01 0.01	Daily Maximum Monthly Average	1/week, When Discharging	Multiple Grabs ³	EFF-10A, EFF-10B	See I.A.27, I.A.28
TRO Discharge Time	min/day	Max Max	60.0 60.0	Daily Maximum Monthly Average	Daily, When Discharging	Logs	EFF-10A, EFF-10B	See I.A.27, I.A.28
pH	s.u.	Max	Report	Daily Maximum	Quarterly, When Discharging	In-situ	INT-10A	
		Min	Report	Daily Minimum	Quarterly, When Discharging	In-situ	EFF-10A, EFF-10B	
		Max	8.5	Daily Maximum				
		Min	6.5	Daily Minimum				

25. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.25 and as described below:

Monitoring Site Number	Description of Monitoring Site
INT-10A	Common intake for all helper cooling tower intake pumps.
EFF-10A	At Outfall D-071 from helper cooling towers 1 and 2 to the site discharge canal.
EFF-10B	At Outfall D-072 from helper cooling towers 3 and 4 to the site discharge canal.

³ Multiple grab samples shall consist of grab samples collected at the beginning of the period of chlorination discharge, and once every 15 minutes, thereafter. In addition, one grab sample shall be collected at the end of the period of chlorine discharge. The "period of chlorine discharge" refers to all chlorination conducted during a 24-hour period.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

26. Cooling towers shall be operated as necessary to ensure that the discharge temperature at monitoring location EFF-3D does not exceed 96.5°F as a three-hour rolling average.
27. Limitations and monitoring requirements for total residual oxidants (TRO) and time of TRO discharge for Outfalls D-071 and D-072 are not applicable for any calendar day in which chlorine is not added.
28. TRO may be discharged from either or both Outfalls D-071 and D-072 at the same time TRO is discharged from Outfalls D-011 or D-012, provided that TRO discharge from either D-071 or D-072 does not exceed a maximum instantaneous concentration of 0.01 mg/l.
29. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge intake screen wash waste water from **Outfall D-094 to the site discharge canal thence the Gulf of Mexico** without limitation or monitoring requirements.
30. The discharges shall not contain components that settle to form putrescent deposits or float as debris, scum, oil, or other matter. [62-302.500(1)(a)]

B. Internal Outfalls

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Station Drain Tank (SDT-1) wastewater from **Internal Outfall I-FG to Outfall D-00F**. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	One Batch/month	Calculated	EFF-8	
Copper, Total Recoverable	lbs/MG	Max Max	8.345 ⁴ 8.345 ⁴	Daily Maximum Monthly Average	One Batch/month	Grab	EFF-8	
Iron, Total Recoverable	lbs/MG	Max Max	8.345 ⁴ 8.345 ⁴	Daily Maximum Monthly Average	One Batch/month	Grab	EFF-8	
Oil and Grease	mg/L	Max Max	20.0 15.0	Daily Maximum Monthly Average	One Batch/month	Grab	EFF-8	
Total Suspended Solids	mg/L	Max Max	100.0 30.0	Daily Maximum Monthly Average	One Batch/month	Grab	EFF-8	
pH	s.u.	Max Min	9.0 6.0	Daily Maximum Daily Minimum	One Batch/month	In-situ	EFF-8	
Number of batches	#	Max Max	Report Report	Daily Maximum Monthly Total	Monthly	Log	EFF-8	

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

Monitoring Site Number	Description of Monitoring Site
EFF-8	At Outfall I-FG prior to mixing with Outfall D-00F.

⁴ The limitation is applicable only when metal cleaning waste is discharged through Outfall I-FG.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

3. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge laundry and shower (LSST) wastewater from **Internal Outfall I-FE** to **Outfall D-00F**. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.3.:

Parameter	Units	Max/ Min	Effluent Limitations		Monitoring Requirements			Notes
			Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	One Batch/month	Calculated	EFF-4	
Oil and Grease	mg/L	Max Max	20.0 15.0	Daily Maximum Monthly Average	One Batch/month	Grab	EFF-4	
Solids, Total Suspended	mg/L	Max Max	100.0 30.0	Daily Maximum Monthly Average	One Batch/month	Grab	EFF-4	
pH	s.u.	Max Min	9.0 6.0	Daily Maximum Daily Minimum	One Batch/month	In-situ	EFF-4	
Number of batches	#	Max Max	Report Report	Daily Maximum Monthly Total	Monthly	Log	EFF-4	

4. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.B.3 and as described below:

Monitoring Site Number	Description of Monitoring Site
EFF-4	The sample port from the laundry and shower sump tank treatment system, but prior to mixing with any other waste stream.

5. The discharge of chemical metal cleaning wastes through Outfall I-FE is not authorized.

C. Other Limitations and Monitoring and Reporting Requirements

1. The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (April 26, 2006)" is available at <http://www.dep.state.fl.us/labs/library/index.htm>. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:
 - a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;
 - b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and
 - c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

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

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

2. The permittee shall provide safe access points for obtaining representative influent and effluent samples which are required by this permit. [62-620.320(6)]
3. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e. monthly, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below. DMRs shall be submitted for each required monitoring period including months of no discharge.

REPORT Type on DMR	Monitoring Period	Due Date
Monthly	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 30	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 may submit either paper or electronic DMR form(s). If submitting paper DMR form(s), the permittee shall make copies of the attached DMR form(s). If submitting electronic DMR form(s), the permittee shall use a Department-approved electronic DMR system.

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

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

Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Parkway
Temple Terrace, Florida 33637
SWD_IW@dep.state.fl.us

[62-620.610(18)]

4. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Southwest District Office at the address specified below:

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Parkway
Temple Terrace, Florida 33637

Phone Number - (813) 632-7600
FAX Number - (813) 632-7665 (All FAX copies and e-mails shall be followed by original copies.)

[62-620.305]

5. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. [62-620.305]
6. If there is no discharge from the facility on a day when the facility would normally sample, the sample shall be collected on the day of the next discharge. [62-620.320(6)]
7. The permittee shall report all visible discharges of floating materials, such as ash or oil sheen, to the Department when submitting DMR forms. Field data sheets shall have appropriate blank(s) to report observations.
8. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid. The permittee shall dispose of all known PCB equipment, articles, and wastes either in accordance with: a) Department-issued permits governing soil thermal treatment (Chapter 62-713, F.A.C.) or Department-approved landfills provided the PCB concentrations meet the Florida landfill's permitted limit when concentrations are less than 50 ppm; or b) 40 CFR 761 when concentrations are greater than or equal to 50 ppm. [40 CFR Part 423.12(b)(2)]
9. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which ultimately may be released to waters of the State is prohibited unless specifically authorized elsewhere in this permit. This requirement is not applicable to products used for lawn and agricultural purposes or to the use of herbicides if used in accordance with labeled instructions and any applicable State permit.

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

- a. Name and general composition of biocide or chemical
- b. Frequencies of use
- c. Quantities to be used
- d. Proposed effluent concentrations
- e. Acute and/or chronic toxicity data (laboratory reports shall be prepared according to Section 12 of EPA document no. EPA-821-R-02-012 EP entitled, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters for Freshwater and Marine Organisms, or most current addition.)
- f. Product data sheet
- g. Product label

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

10. The permittee is authorized to utilize the following water treatment chemicals within systems that have the potential to discharge via one of the NPDES outfalls:

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

Chemical Name	System Used
Sodium Hypochlorite	OTCW systems, HCTs, Service/Fire/Potable Water Systems
Sodium Bromide (including Nalco Actibrom 1338 or 1318)	OTCW systems, HCTs
Sodium Bisulfate (including Nalco 7408)	OTCW systems, HCTs
Spectrus CT1300 (Clamtrol)	OTCW – Heat Decay System
Hydrazine, Morpholine, Hydroquinone, Ammonia	Secondary-side System
Neutral Multi-Use Cleaner, Crud Remover	Reactor Cavity
GE Betz – Dianodic 2142 (phosphoric acid-potassium hydroxide)	Closed cycle instrument air heat exchangers
GE Betz – Spectrus NX1103	Closed cycle instrument air heat exchangers
GE Betz – Spectrus NX1100	Closed cycle instrument air heat exchangers
GE Betz - Foamtrol	Closed cycle instrument air heat exchangers
GE Betz - Spectrus OX903 (bromine-based biocide)	Closed cycle instrument air heat exchangers
GE Betz – Continuum AT901 (phosphate-based corrosion/anti-scaling chemical)	Closed cycle instrument air heat exchangers
Nalco CL-50 (sodium phosphate-based corrosion control)	Service/Fire/Potable Water Systems

Ameron ABC #3 use is allowed on a case by case basis following notification and review of the specific use by the Department.

Condenser Maintenance Program

The permittee is authorized to use a mechanical condenser tube cleaning process for Units 1 and 2. The loss of cleaning bodies, such as scrapers or pigs, shall be kept to a minimum. The use of a non-mechanical cleaning process, such as chemical or thermal, shall be subject to approval by the Department.

11. Discharge of any waste resulting from the combustion of toxic, hazardous, or metal cleaning wastes to any waste stream which ultimately discharges to waters of the State is prohibited, unless specifically authorized elsewhere in this permit.
12. The permittee shall not store coal, soil, or other similar erodible materials in a manner in which runoff is uncontrolled, or conduct construction activities in a manner which produces uncontrolled runoff.
13. Unless otherwise specifically permitted in this permit, there shall be no point source discharges of any wastes to waters of the State, or to any waste stream which enters such waters. The permittee shall operate and maintain loading and unloading facilities in such a manner in order to preclude spillage of coal, chemicals, etc., used at the facility, and shall take all actions necessary to clean-up and control any such spill which may occur.
14. Any water drained from the fuel oil storage tanks or other water which meets the definition of "Petroleum Contact Water" as defined in Rule 62-740.030(1), F.A.C., shall be disposed at a Department-approved facility in accordance with Chapter 62-740, F.A.C.
15. Any bypass of the treatment facility which is not included in the monitoring specified in sections I.A and I.B is to be monitored for flow and all other required parameters. For parameters other than flow, at least one grab sample per day shall be collected. Daily flow shall be monitored or estimated, as appropriate, to obtain reportable data. All monitoring results shall be reported on the appropriate DMR.
16. The permittee shall continue compliance with the facility's Manatee Protection Plan approved by the Department on May 15, 2002 and as amended thereafter.
17. Combined Waste Stream : In the event that waste streams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property attributable to each controlled waste source shall not exceed the specified limitation for that waste source (ref. 40 CFR Section 423.15(k);1974).

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

II. SLUDGE MANAGEMENT REQUIREMENTS

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

III. GROUND WATER REQUIREMENTS

Section III is not applicable to this facility. Ground water monitoring requirements for this facility are included in Conditions of Certification PA77-09.

IV. ADDITIONAL LAND APPLICATION REQUIREMENTS

Section IV is not applicable to this facility.

V. OPERATION AND MAINTENANCE REQUIREMENTS

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

[62-620.350]

VI. SCHEDULES

1. A Best Management Practices Pollution Prevention (BMP3) Plan shall be prepared and implemented in accordance with Part VII of this permit and the following schedule:

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

Improvement Action	Completion Date
1. Continue Implementing Existing BMP3 Plan	Issuance Date of Permit

[62-620.320(6)]

2. If the permittee wishes to continue operation of this wastewater facility after the expiration date of this permit, the permittee shall submit an application for renewal no later than one-hundred and eighty days (180) prior to the expiration date of this permit. Application shall be made using the appropriate forms listed in Rule 62-620.910, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C. [62-620.335(1) and (2)]

VII. BEST MANAGEMENT PRACTICES/STORM WATER POLLUTION PREVENTION PLANS

Note: A Storm Water Pollution Prevention Plan (SWPPP) required under a Storm Water Multi-Sector General Permit may be implemented in lieu of the Best Management Practices/Pollution Prevention (BMP3) requirements below. The permittee shall comply with the BMP3 requirements below and schedule in Condition VI.1 if the developed SWPPP is not implemented.

1. General Conditions

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

a. Definitions

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

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

- (9) "BMP3" means a Best Management Practices Pollution Prevention Plan incorporating the requirements of 40 CFR § 125, Subpart K, plus pollution prevention techniques, except where other existing programs are deemed equivalent by the permittee. The permittee shall certify the equivalency of the other referenced programs.
- (10) The term "material" refers to chemicals or chemical products used in any plant operation (i.e., caustic soda, hydrazine, degreasing agents, paint solvents, etc.). It does not include lumber, boxes, packing materials, etc.

2. Best Management Practices/Pollution Prevention Plan

The permittee shall develop and implement a BMP3 plan for the facility, which is the source of wastewater and storm water discharges, covered by this permit. The plan shall be directed toward reducing those pollutants of concern, including mercury, which discharge to surface waters and shall be prepared in accordance with good engineering and good housekeeping practices. For the purposes of this permit, pollutants of concern shall be limited to toxic pollutants, as defined above, known to the discharger. The plan shall address all activities which could or do contribute these pollutants to the surface water discharge, including process, treatment, and ancillary activities.

a. Signatory Authority & Management Responsibilities

The BMP3 plan shall be signed by permittee or their duly authorized representative in accordance with rule 62-620.305(2)(a) and (b). The BMP3 plan shall be reviewed by plant environmental/engineering staff and plant manager. Where required by Chapter 471-(P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of the BMP3 plan shall be signed and sealed by the professional(s) who prepared them.

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

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

b. BMP3 Plan Requirements

- (1) Name & description of facility, a map illustrating the location of the facility & adjacent receiving waters, and other maps, plot plans or drawings, as necessary;
- (2) Overall objectives (both short-term and long-term) and scope of the plan, specific reduction goals for pollutants, anticipated dates of achievement of reduction, and a description of means for achieving each reduction goal;
- (3) A description of procedures relative to spill prevention, control & countermeasures and a description of measures employed to prevent storm water contamination;
- (4) A description of practices involving preventive maintenance, housekeeping, recordkeeping, inspections, and plant security; and
- (5) The description of a waste minimization assessment performed in accordance with the conditions outlined in condition c below, results of the assessment, and a schedule for implementation of specific waste reduction practices.

c. Waste Minimization Assessment

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

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

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

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

d. Best Management Practices & Pollution Prevention Committee Recommended:

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

e. Employee Training

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

f. Plan Development & Implementation

The BMP3 plan shall be developed and implemented 6 months after the effective date of this permit, unless any later dates are specified in this permit. Any portion of the WMA which is ongoing at the time of development or implementation shall be described in the plan. Any waste reduction practice which is recommended for implementation over a period of time shall be identified in the plan, including a schedule for its implementation.

g. Submission of Plan Summary & Progress/Update Reports

- (1) Plan Summary: Not later than 2 years after the effective date of the permit, a summary of the BMP3 plan shall be developed and maintained at the facility and made available to the permit issuing authority upon request. The summary should include the following: a brief description of the plan, its implementation process, and schedules for implementing identified waste reduction practices, and a list of all waste reduction practices being employed at the facility. The results of waste minimization assessment studies already completed as well as any scheduled or ongoing WMA studies shall be discussed.
- (2) Progress/Update Reports: Annually thereafter for the duration of the permit progress/update reports documenting implementation of the plan shall be maintained at the facility and made available to the permit issuing authority upon request. The reports shall discuss whether or not implementation schedules were met and revise any schedules, as necessary. The plan shall also be updated as necessary and the attainment or progress made toward specific pollutant reduction targets documented. Results of any ongoing WMA studies as well as any additional schedules for implementation of waste reduction practices shall be included.
- (3) A timetable for the various plan requirements follows:

Timetable for BMP3 Plan Requirements:

REQUIREMENT	TIME FROM EFFECTIVE DATE OF THIS PERMIT
Progress/Update Reports	3 years, and then annually thereafter

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

h. Plan Review & Modification

If following review by the Department, the BMP3 plan is determined insufficient, the permittee will be notified that the BMP3 plan does not meet one or more of the minimum requirements of this Part. Upon such notification from the Department, the permittee shall amend the plan and shall submit to the Department a written certification that the requested changes have been made. Unless otherwise provided by the Department, the permittee shall have 30 days after such notification to make the changes necessary.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

The permittee shall modify the BMP3 plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to waters of the State or if the plan proves to be ineffective in achieving the general objectives of reducing pollutants in wastewater or storm water discharges. Modifications to the plan may be reviewed by the Department in the same manner as described above.

3. The permittee is authorized to discharge storm water and/or groundwater drained from secondary containment structures surrounding petroleum and bulk chemical storage areas, and from miscellaneous electrical and/or service vaults, provided the following conditions are met:
 - a. The facility shall have a valid SPCC Plan pursuant to 40 CFR 112.
 - b. Such activity shall be described in the BMP3 Plan/SWPPP, including references to existing facility procedures governing these draining activities.
 - c. In draining the secondary containments or vaults, a portable oil skimmer or similar device or absorbent material shall be used to remove oil and grease (as indicated by the presence of a sheen) immediately prior to draining. For bulk acid or caustic chemical storage containment areas, pH shall be checked prior to draining.
 - d. Monitoring records shall be maintained in the form of a log and shall contain the following information, at a minimum:
 - (1) Date of discharge,
 - (2) Initials of person making visual inspection and authorizing discharge, and
 - (3) Observed conditions of storm water discharged.
 - e. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of a visible oil sheen at any time as a result of this activity, unless such drainage is directed to on-site industrial wastewater treatment facilities.

VIII. OTHER SPECIFIC CONDITIONS

A. Specific Conditions Applicable to All Permits

1. Where required by Chapter 471 or Chapter 492, F.S., applicable portions of reports that must be submitted under this permit shall be signed and sealed by a professional engineer or a professional geologist, as appropriate. [62-620.310(4)]
2. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file at the Department's Southwest District Office, are made a part hereof.
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.
4. The permittee shall provide verbal notice to the Department's Southwest District Office as soon as practical after discovery of a sinkhole or other karst feature within an area for the management or application of wastewater, or wastewater sludges. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department's Southwest District Office in a written report within 7 days of the sinkhole discovery. [62-620.320(6)]

B. 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,

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

- (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; or
- 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.

[62-620.625(1)]

C. Impoundment Operation and Maintenance

1. All impoundments (including percolation basins and dredge spoils areas) used to hold or treat wastewater and other associated wastes shall be operated and maintained to prevent the discharge of pollutants to waters of the State, except as authorized under this permit and MSGP Permit Number FLR05G904-001 et seq.
2. Operation and maintenance of any impoundment shall be in accordance with all applicable State regulations. When practicable, piezometers or other instrumentation shall be used as a means to aid monitoring of impoundment integrity.

D. Impoundment Integrity Inspections

1. No later than **January 28, 2015**, and annually thereafter, all impoundments shall be inspected by qualified personnel with knowledge and training in impoundment integrity. Annual inspections shall include observations of dike and toe areas for erosion, cracks or bulges, seepage, wet or soft soil, changes in geometry, the depth and elevation of the impounded water, sediment or slurry, freeboard, changes in vegetation such as overly lush, dead or unnaturally tilted vegetation, and any other changes which may indicate a potential compromise to impoundment integrity.
2. Within 30 days after the annual inspection, a qualified, responsible officer shall certify to the Department that no breaches or structural defects resulting in the discharges to surface waters of the State and that no changes were observed which may indicate a potential compromise to impoundment integrity during the previous calendar year.

The certification shall also include a statement that the impoundments provides the necessary minimum wet weather detention volume to contain the combined volume for all direct rainfall and all rainfall runoff to the pond resulting from the 10-year, 24-hour rainfall event and maximum dry weather plant waste flows which could occur during a 24-hour period.

3. The permittee shall conduct follow-up inspections within 7 days after large or extended rain events (i.e., 25-year, 24-hour precipitation event).
4. In the event that the impoundment integrity is compromised and may result in a potential discharge to surface waters of the State, the permittee shall notify the Department within twenty-four (24) hours of becoming aware of the situation and provide a proposed course of corrective action and implementation schedule within fifteen (15) days after notifying the Department. Observed changes such as significant increases in seepage or seepage carrying sediment may be signs of imminent impoundment failure and should be addressed immediately.

E. Reporting and Recordkeeping Requirements for Impoundments

1. The summarized findings of all monitoring activities, inspections, and corrective actions pertaining to the impoundment integrity, and operation and maintenance of all impoundments shall be documented and kept on-site in accordance with Permit Condition V.A.2, and made available to Department inspectors upon request.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

2. Starting with the issuance of this permit, all pertinent impoundment permits, design, construction, operation, and maintenance information, including but not limited to: plans, geotechnical and structural integrity studies, copies of permits, associated certifications by qualified, Florida-registered professional engineer, and regulatory approvals, shall be kept on site in accordance with Permit Condition V.A.2 and made available to Department inspectors upon request.

F. Duty to Reapply

1. The permittee is not authorized to discharge to waters of the State after the expiration date of this permit, unless:
 - a. the permittee has applied for renewal of this permit at least 180 days before the expiration date (**October, 8, 2018**) using the appropriate forms listed in Rule 62-620.910, F.A.C., and in the manner established in the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.; or
 - b. the permittee has made complete the application for renewal of this permit before the permit expiration date.

[62-620.335(1)-(4), F.A.C.]

2. When publishing Notice of Draft and Notice of Intent in accordance with Rules 62-110.106 and 62-620.550, F.A.C., the permittee shall publish the notice at its expense in a newspaper of general circulation in the county or counties in which the activity is to take place either
 - a. Within thirty days after the permittee has received a notice; or
 - b. Within thirty days after final agency action.

Failure to publish a notice is a violation of this permit.

G. Reopener Clauses

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, EPA established Total Maximum Daily Loads (TMDLs), or other information show a need for a different limitation or monitoring requirement.
3. The Department or EPA may develop a 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.
4. The permit shall be reopened for revision as appropriate to address new information that was not available at the time of this permit issuance or to comply with requirements of new regulations, standards, or judicial decisions relating to CWA 316(b).

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

IX. GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida Statutes, and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. [62-620.610(1)]
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviations from the approved drawings, exhibits, specifications or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. [62-620.610(2)]
3. As provided in subsection 403.087(7), 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 infringement 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)]
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)]
5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [62-620.610(5)]
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)]
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)]
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)]
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.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

[62-620.610(9)]

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, F.S., 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)]*
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)]*
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)]*
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)]*
14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. *[62-620.610(14)]*
15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility or activity and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15)]*
16. The permittee shall apply for a revision to the Department permit in accordance with Rules 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., 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)]*
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)]*
18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246 and Chapters 62-160, 62-601, and 62-610, 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), or as specified elsewhere in the permit.

PERMITTEE: Duke Energy Florida, Inc.
FACILITY: Crystal River Units 1, 2 and 3

PERMIT NUMBER: FL0000159 (Major)
EXPIRATION DATE: April 6, 2019

- b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
- c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
- d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.
- e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.
- f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220, and 62-160.330, F.A.C.

[62-620.610(18)]

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)]
20. The permittee shall report to the Department's Southwest District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- 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 treated or untreated 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 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 the Department's Southwest 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 Southwest District Office shall waive the written report.

[62-620.610(20)]

21. The permittee shall report all instances of noncompliance not reported under Permit Conditions IX.17, 18 or 19 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Permit Condition IX.20 of this permit. [62-620.610(21)]

22. Bypass Provisions.

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment works.
- b. 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 preventive maintenance; and
 - (3) The permittee submitted notices as required under Permit Condition IX.22.c. of this permit.
- c. 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 Permit Condition IX.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.
- d. 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 Permit Condition IX.22.b.1 through 3 of this permit.
- e. 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 provisions of Permit Condition IX.22.b. through d. of this permit.

[62-620.610(22)]

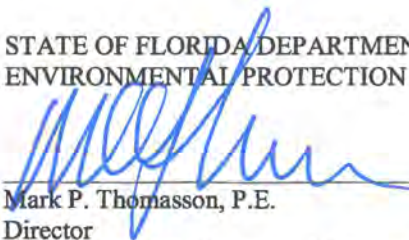
23. Upset Provisions.

- a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee.
- (1) An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation.
 - (2) An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of upset provisions of Rule 62-620.610, F.A.C., are met.
- b. 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 Permit Condition IX.20. of this permit; and
 - (4) The permittee complied with any remedial measures required under Permit Condition IX.20. of this permit.
- c. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.
- d. 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)]

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION



Mark P. Thomasson, P.E.

Director

Division of Water Resource Management

2600 Blair Stone Road

Tallahassee, Florida 32399-2400

**BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

IN THE MATTER OF:

Duke Energy Florida, Inc.
15760 Power line Street
Crystal River, Florida 34428

Administrative Order No. AO-024-TL

Crystal River Power Plant Units 1-3
DEP Permit No: FL0000159

ADMINISTRATIVE ORDER

I. STATUTORY AUTHORITY

The Department of Environmental Protection (Department) issues this Administrative Order under the authority of Section 403.088(2)(f), Florida Statutes (F.S.). The Secretary of the Department has delegated this authority to the Director of the Division of Water Resources Management, who issues this order and makes the following findings of fact.

II. FINDINGS OF FACT

1. Duke Energy Florida, Inc. (DEF or Permittee) is a "person" as defined under Section 403.031(5), F.S.
2. The Permittee owns and operates a steam electric power generating facility known as Crystal River Energy Complex ("Facility"). The Facility consists of five steam electric generating units (Units 1, 2, 3, 4 and 5). The surface water discharges from Units 4 and 5 are regulated under a separate wastewater permit (NPDES Permit No. FL0036366). The Facility, located at 15760 West Power Line Street, Crystal River, Citrus County, Florida 34428, discharges industrial wastewater into waters of the state as defined in Section 403.031(13), F.S.
3. The Permittee has filed an application for renewal of NPDES Permit No. FL0000159 (Permit), under Section 403.088(2), F.S.
4. The Permit expired on August 31, 2013. The Permittee has applied for renewal of the Permit 180 days before the expiration date. Hence, the Department may administratively continue the Permit, if necessary, after the expiration date of the Permit pursuant to Rules 62-620.335(1)-(4), F.A.C.
5. Units 1 and 2 use once-through cooling water from the Gulf of Mexico to remove heat from the main condensers via a circulating water system. Cooling water is withdrawn from the Gulf of Mexico through the plant's intake canal to the Units 1 and 2 intake structures. This water is then pumped through the main condensers for each unit. Heated cooling water is released to the onsite discharge canal and then to the Gulf of Mexico, a Class II marine water.
6. The Unit 3 nuclear reactor and the once-through cooling water system serving the reactor have been offline since September 2009 when a refueling and 20% uprate outage began. During the upgrade, damage to the concrete containment dome was discovered. Repairs were unsuccessful, and in February 2013 DEF announced that the unit is to be permanently shut down (retired). Hence, this unit is no longer a contributing source for thermal load to the Facility's main discharge canal.
7. Section 316(a) of the Clean Water Act (CWA) allows the application of alternative thermal discharge limits if it can be demonstrated that existing water quality standards are more stringent than necessary to assure the protection and propagation of aquatic life.

8. Section 316(b) of the CWA requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. A number of Florida steam electric power plants use large volumes of cooling water from lakes, rivers, estuaries or oceans to cool their plants. The cooling water intake structures affect the environment by squashing against the intake screens (impingement) or suctioning into the cooling system (entrainment) aquatic organisms (fish and shellfish or their eggs) from the water sources tapped to cool the plants.
9. EPA Region IV issued the original NPDES permit for this Facility. The Permittee conducted Section 316(a) and (b) studies at the Facility from June 1983 through August 1984. The studies were conducted in accordance with a plan of study approved by both EPA and the Department. Data collected as part of these studies projected annual impact levels on local fishery populations. The annual impact levels for some species were determined to be unacceptable.
10. The 316(a) study found approximately 3000 acres (4.7 square miles) of bay bottom was adversely affected by the thermal discharge. Within these 3000 acres, 1100 acres were barren, primarily due to the operation of Units 1, 2, and 3. Over 50 percent of fish and invertebrate species normally indigenous to Crystal Bay were excluded from the thermally impacted area.
11. The 316(b) study found impingement of finfish and shellfish species having recreational, commercial and/or forage value approximated 23 tons, including 3.4 tons of pink shrimp and 14.3 tons of blue crab. In addition, the study found that the entrainment of fish eggs and larvae of fish and shellfish was considerable. Annual entrainment involved billions of animals most of which were anchovies and crustaceans.
12. The Crystal River Units 1, 2 and 3 NPDES permit reissued on September 1, 1988 included thermal and flow limitations as well as the construction and operation of a multi-species fish hatchery based on Section 316(a) and (b) determinations. It was determined that these effluent limitations would assure compliance with Florida Administrative Code and would be consistent with 316(a) limits that were more stringent than necessary to assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on Crystal Bay.
13. The proposal to install helper cooling towers to produce a maximum instantaneous discharge temperature of 97.0 F and a maximum three-hour average temperature of 96.5 F was expected to return the discharge area to the approximate thermal levels in existence prior to operation of Unit 3 beginning in 1977. This level of operation was determined to include a 300-acre area adversely impacted by the combined thermal discharge of Units 1&2. It was further determined that a variance for a 300-acre area would assure the protection and propagation of a balanced, indigenous population in Crystal Bay.
14. To minimize the adverse impact of the cooling water intake structures and the thermal discharge, the concept of a multi-species marine hatchery to mitigate fisheries impacts in Crystal Bay was developed as an innovative, cost-effective alternative to conventional engineering solutions to address Sections 316(a) and (b) of the CWA. The Crystal River Mariculture Center became part of a negotiated settlement, which also included cooling water flow reductions at three of the units and installation of helper cooling towers.
15. The Mariculture Center began operation October 1991 and is required to remain operational as long as water from the Gulf of Mexico is utilized for condenser cooling at the Facility.
16. The Mariculture Center includes a two-story, 8100 square-foot, hatchery building and eight one-acre ponds. The hatchery building includes a water-chemistry laboratory, four spawn rooms, an incubation tank room, algae production room, and administrative spaces. The Florida Department of Agriculture and Consumer Services regulates the operation of the Mariculture Center.
17. The construction and operation of a fish hatchery over the remaining operation of Units 1 and 2 to replace fish and shellfish impacted directly or indirectly by thermal discharge will constitute minimization of the environmental impacts of the Crystal River Units 1 and 2 cooling water intake as required by Section 316(a) of the Act.

18. Effective September 7, 2004, EPA's final 316(b) CWA Phase II rule set national performance standards for reduction in impingement mortality and entrainment for existing power plants designed to withdraw water from rivers, streams, lakes, reservoirs, estuaries, oceans or other waters of the United States to cool their facilities. Riverkeeper, Inc. and several other environmental organizations and six states mounted a challenge to EPA's decision shortly after the rule's promulgation.
19. On January 25, 2007, the United States Court of Appeals for the Second Circuit remanded or set aside key components of the 316(b) Phase II rule. *Riverkeeper, Inc. et al. v. U.S. EPA*, Docket No. 04-6692-ag(L) et al. In summary, the court remanded EPA's best technology available determination, the rule's performance standards, and struck down restoration measures such as the Facility's Mariculture Center. This action required EPA to conduct further rulemaking.
20. In November 2010, EPA signed a Settlement Agreement with Riverkeeper regarding rulemaking dates for EPA to set revised technology standards for cooling water intake structures for existing facilities subject to Section 316(b) CWA. The final rule is anticipated to be signed by November 4, 2013, barring approval of additional extensions by a federal judge.
21. On April 20, 2011, EPA published in the Federal Register the proposed 316(b) regulations for existing facilities. The proposed regulations provide that covered facilities are required to meet the impingement standard as soon as possible, but no later than eight years after the effective date of the rule.
22. Rule 62-302.520(6)(a), F.A.C., authorizes the Department to establish mixing zones for thermal discharges from once-through cooling water systems, on a case-by-case basis, when supported by a demonstration, as provided in Section 316(a) of the Clean Water Act and regulations promulgated thereunder, including Title 40 of the Code of Federal Regulations (40 CFR) Parts 122 and 125, that assures the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on the body of water.
23. Under 40 CFR Section 125.73, existing sources can base their 316(a) demonstration on a lack of appreciable harm instead of completing predictive studies. However, under 40 CFR Section 125.72(c), the type of detailed studies contemplated under 125.72(a) and (b) can be required whenever the Department determines it to be necessary. The Permittee collected a substantial amount of biological data in support of its 316(a) demonstration in the early 1980's. After examining the record of prior 316(a) determinations for the Facility after those dates, the Department has determined that a need exists for a more thorough examination of the balanced, indigenous population, the identification of representative important species, and a closer examination of whether the temperature limitations are protective.
24. The announced permanent retirement of Unit 3 and associated reduction in combined thermal discharge volume, coupled with thermal and flow limitations on Units 1 & 2, and operation of a multi-species fish hatchery, results in a level of operation more stringent than the one in existence prior to the operation of Unit 3.
25. This level of operation would protect aquatic plants and animals in the plant discharge area by assuring the protection and propagation of a balanced, indigenous population in Crystal Bay and hence the continuation of the 316(a) variance is appropriate for the remaining operating life of Units 1 and 2.
26. Sections 403.088(2)(e) and (f), F.S., allow the Department to issue, renew, or reissue a permit for the discharge of wastewater into waters of the state, which may not immediately meet all applicable rule requirements, if the permit is accompanied by an order establishing a schedule for achieving compliance with all permit conditions if criteria specified in the order are met.
27. The Department finds that the granting of an operation permit will be in the public interest; and,
28. This order and associated wastewater Permit FL0000159 constitute the Department's authorization to discharge pollutants to waters of the state under the NPDES and its determination that the Facility is in compliance with Section 403.088, F.S. This order includes an implementation schedule.

III. ORDER

Based on the foregoing findings of fact,

IT IS ORDERED,

29. No later than 180 days following the effective date of the final 316(b) rule, the Permittee shall submit a feasibility study report (Report) for engineering options to meet the marine water requirements of the final regulations for 316(b). The options shall include, but are not limited to, reduction in flow velocity at the intake structures to 0.5 ft/s, installing organism return systems. The options shall be ranked based on equal weighting of technical and economic feasibility and environmental impact. In addition, the Report shall include a plan and schedule for implementing the highest ranked option. The schedule shall include milestones and the completion date. The completion date shall be based upon the complexity of the engineering option and availability of contractors if applicable. The implementation shall take no longer than 96 months of the effective date of the final 316(b) CWA rule for existing facilities.
30. The Permittee shall comply with all applicable requirements and schedules of the final 316(b) CWA rule for existing facilities.
31. The Permittee shall provide a status report demonstrating progress toward compliance with the discharge limitation every six months following the approval of the Engineering Report, until completion of the engineering solution. The status reports shall document accomplishment of milestones established by the schedule in the approved Engineering Report.
32. No later than 90 days after the effective date of this revised Order, the Permittee shall prepare and submit for the Department's review and approval a modified biological plan of study (Biological POS) and schedule to address the retirement of Unit 3. Biological POS shall be designed to generate information relevant to the following elements: 1) "a population typically characterized by diversity at all trophic levels;" 2) "the capacity to sustain itself through cyclic seasonal changes;" 3) "presence of necessary food chain species;" 4) "non-domination of pollution-tolerant species;" and 5) "indigenous." Each of these elements is discussed in more detail in Paragraphs III. 33-37 of this Order. In addition to the foregoing elements, the Biological POS shall also include provisions for the identification of Representative Important Species (e.g., a list of threatened, endangered, thermally sensitive, or commercially or recreationally valuable species in up- and down-stream of the study area). Representative Important Species is defined as "species which are representative, in terms of their biological needs, of a balanced, indigenous community of shellfish, fish and wildlife in the body of water into which a discharge of heat is made." The study shall last no less than 24 months after commencement of the study. The results of the study shall be submitted in a report (Biological Report) to the Department for review and approval no later than 90 days after the approved Biological POS completion date. The schedule shall include milestones and the completion date.
33. "A population typically characterized by diversity at all tropic levels" means that all of the major tropic levels present in the unaffected portion of the Gulf of Mexico should be present in the heat affected portions. The Department recognizes that community structure differences will occur, however, the number of species represented in each tropic level in the unaffected portions should be reasonably similar in the heat affected portions of the ocean. Sampling and analysis of fish and invertebrate communities should be done such that the major tropic levels are identified and represented by reasonably similar species distributions. Also, the Biological POS shall be expanded to include some observations of wildlife (i.e., water fowl, mammals, amphibians, etc.) both upstream and immediately downstream of the discharge point that may be impacted by the thermal discharge.
34. "The capacity to sustain itself through cyclic seasonal changes" means that any additional thermal stress will not cause significant community instability during times of natural extremes in environmental conditions. Community data shall be collected during normal seasonal extremes as well as during optimal seasonal conditions. Data shall be compared between heat affected and unaffected portions of the ocean to account for normal community changes corresponding with change in season.

35. "Presence of necessary food chain species" means that the necessary food webs remain intact so that communities will be sustaining. Exhaustive food web studies are not necessary provided that planktonic invertebrate, fish and wildlife communities are otherwise healthy, i.e., represented by sufficiently high species diversity and abundance (appropriate for that portion of the ocean) for the identified tropic levels and sustaining through normal seasonal changes.
36. "Non-domination of pollution-tolerant species" means that in the case of a thermal effluent, community assemblages in heat-affected portions of the ocean dominated by heat tolerant species do not constitute a balanced, indigenous population. The Department recognizes that because all species have varying levels of thermal tolerance, communities in the heat-affected portions of the ocean may possess altered assemblages in terms of species present and abundance. All community data should be collected, analyzed and presented to clearly demonstrate that affected communities have not shifted to primarily heat tolerant assemblages.
37. "Indigenous" means a community that may include historically non-native species introduced in connection with a program of wildlife management and species whose presence or abundance results from substantial, irreversible environmental modifications. Normally, however, such a community will not include species whose presence is attributable to the introduction of pollutants that will be eliminated by compliance by all sources with Section 301(b)(2) of the Clean Water Act, and may not include species whose presence or abundance is attributable to alternative effluent limitations imposed pursuant to a thermal zone of mixing. The Department recognizes that non-indigenous species are present in aquatic systems in Florida. All community data shall be analyzed and presented to demonstrate that community assemblages in the heat affected portions of the ocean are not significantly different from non-affected communities with regard to the number of non-indigenous species in the assemblages.
38. If the Biological Report fails to demonstrate that a balanced, indigenous population exists based on the criteria listed in Paragraph III.32 of this Order, the Permittee shall prepare a feasibility study report (Report) for the evaluation of options to achieve a balanced, indigenous population. The Report shall be submitted to the Department for review and approval no later than 90 days after any Department determination that heated water from the discharge fails to meet the criteria listed in Part III.32 of the Order. The options shall be ranked based on equal weighting of technical and economic feasibility. The results of the ranking shall be presented in the Report. In addition, the Report shall include a plan and schedule for implementing the highest ranked option. The schedule shall include milestones and the completion date. The implementation shall take no longer than 24 months from Department approval of the Report.
39. The Permittee shall provide a status report demonstrating progress toward a balanced, indigenous population every six months following the approval of the Report, until a balanced, indigenous population is achieved. The status reports shall document accomplishment of milestones established by the schedule in the approved Report.
40. Monitoring results shall be submitted in accordance with the Permit.
41. The Permittee shall maintain and operate its facilities in compliance with all other conditions of the Permit.
42. This Order may be modified through revisions as set forth in Chapter 62-620, F.A.C. Unless otherwise specified herein, reports or other information required by this order shall be sent to: Industrial Wastewater Program, ATTN: Mail Station 3545, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, with a copies sent to: Industrial Wastewater Section, Department of Environmental Protection, Southwest District, 13051 N.Telcom Parkway, Temple Terrace, Florida 33637
43. This order does not operate as a permit under Section 403.088, F.S. This order shall be incorporated by reference into NPDES Permit No. FL0000159, which shall require compliance by the Permittee with the requirements of this order.
44. Failure to comply with the requirements of this order shall constitute a violation of this order and Permit No. FL0000159, and may subject the Permittee to penalties as provided in Section 403.161, F.S.

45. This order is final when filed with the clerk of the Department, and the Permittee then shall implement this order unless a petition for an administrative proceeding (hearing) is filed in accordance with the notice set forth in the following Section.
46. If any event occurs that causes delay or the reasonable likelihood of delay, in complying with the requirements of this order, the Permittee shall have the burden of demonstrating that the delay was or will be caused by circumstances beyond the reasonable control of the Permittee and could not have been or cannot be overcome by the Permittee's due diligence. Economic circumstances shall not be considered circumstances beyond the reasonable control of the Permittee, nor shall the failure of a contractor, subcontractor, materialman or other agent (collectively referred to as "contractor") to whom responsibility for performance is delegated to meet contractually imposed deadlines be a cause beyond the control of the Permittee, unless the cause of the contractor's late performance was also beyond the contractor's control. Delays in final agency action on an application for a relief mechanism are eligible for consideration under this paragraph, provided that none of those delays were a result of late submission by the Permittee. Upon occurrence of an event causing delay, or upon becoming aware of a potential for delay, the Permittee shall notify the Department orally at: the Department's Southwest District office, (813) 63 2-7600, within 24 hours or by the next working day and shall, within seven calendar days of oral notification to the Department, notify the Department in writing at: with a copies sent to: Industrial Wastewater Section, Department of Environmental Protection, Southwest District, 13051 N. Telcom Parkway, Temple Terrace , FL 33637 of the anticipated length and cause of the delay, the measures taken or to be taken to prevent or minimize the delay and the timetable by which Facility intends to implement these measures. If the delay or anticipated delay has been or will be caused by circumstances beyond the reasonable control of the Permittee, the time for performance hereunder shall be extended for a period equal to the delay resulting from such circumstances.

IV. NOTICE OF RIGHTS

A person whose substantial interests are affected by the Department's decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the F.S. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Petitions by the applicant or any of the parties listed below must be filed within twenty-one days of receipt of this written notice. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within twenty-one days of publication of the notice or within twenty-one days of receipt of the written notice, whichever occurs first.

Under Section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within twenty-one days of receipt of such notice, regardless of the date of publication.

The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

- (a) The name, address, and telephone number of each petitioner; the Department permit 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 the material facts disputed by the petitioner, if any;
- (e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;

(f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

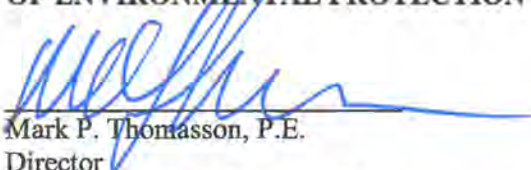
Mediation under Section 120.573, F.S., is not available for this proceeding.

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

Any party to the order has the right to seek judicial review of the order under Section 120.68, F.S., 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 in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

DONE AND ORDERED on this 07th day of April 2014 in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

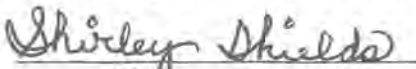

Mark P. Thomasson, P.E.

Director

Division of Water Resource Management

CLERK STAMP

FILED AND ACKNOWLEDGED on this date, under Section 120.52(7) of the Florida Statutes, with the designated Department Clerk, receipt of which is acknowledged.


Clerk

04 - 07 - 2014

Date

Copies furnished to Permit Distribution List

APPENDIX 10.6.4

MULTI-SECTOR GENERIC PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY



Florida Department of Environmental Protection

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

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard, Jr.
Secretary

March 1, 2013

Robby A. Odom
Progress Energy Florida, Inc.
PO Box 14042, PEF-903
St. Petersburg, FL 33733

RE: **Facility ID: FLR05H479**
Crystal River Units 1, 2, & 3
County: Citrus

Dear Permittee:

The Florida Department of Environmental Protection has received and processed your *Notice of Intent to Use Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity* (NOI) and the accompanying processing fee. This letter acknowledges that:

- your NOI is complete;
- your processing fee is paid-in-full; and
- you are covered under the *Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity* (MSGP).

Your facility identification number is **FLR05H479**. Please include this number on all future correspondence regarding this permit.

This letter is **not** your permit; however, it does serve as **verification of permit coverage**. A copy the sector-specific permit language is available online at **www.dep.state.fl.us/water/stormwater/npdes/industrial5.htm** or by contacting the NPDES Stormwater Notices Center. Your facility falls under **Sector O** of the MSGP.

Your coverage under the MSGP becomes effective **March 1, 2013** and will expire **February 28, 2018**. To terminate your coverage prior to this expiration date, you must file a *National Pollutant Discharge Elimination System (NPDES) Stormwater Notice of Termination*, DEP Form 62-621.300(6). To renew your coverage beyond the expiration date, you must submit a new NOI and processing fee to the Department no later than two days before your coverage expires.

Until your permit coverage is terminated, modified, or revoked, you are authorized to discharge stormwater from your facility to surface waters in accordance with the terms and conditions of the MSGP. Key conditions of the MSGP are:

- implementing your stormwater pollution prevention plan (SWPPP);
- retaining the records required by the permit (including your SWPPP) at your facility; and
- conducting your required monitoring.

Required Monitoring:

Analytical Monitoring

Analytical samples of your stormwater discharge(s) must be collected and analyzed at least once each calendar quarter after a qualifying rain event during the periods of January through March, April through June, July through September, and October through December during years **two** and **four** of your permit cycle for the parameters specified in your Sector(s).

Analytical monitoring must be conducted in accordance with the following schedule:

- Year **two monitoring period** begins January 1, 2014 and ends December 31, 2014
- Year **four monitoring period** begins January 1, 2016 and ends December 31, 2016

The samples must be analyzed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). At the end of the monitoring year, you must average your quarterly Discharge Monitoring Report (DMR) results and record the quarterly average on an annual DMR form. If there is no stormwater discharged from your facility after a qualifying rain event during a calendar quarter, you must still complete and sign a DMR form for that quarter indicating "No Discharge" by checking the box at the top of the form.

Compliance Monitoring

Your facility may also be subject to numerical effluent limitations and **annual compliance monitoring** requirements. Please review your permit closely to determine if the activities conducted at your facility require compliance monitoring/reporting. If applicable, a compliance monitoring DMR must be completed and submitted for monitoring results obtained in each calendar year required by your MSGP permit.

March 1, 2013

DMR Forms

Quarterly, Annual and Compliance Monitoring DMR forms are attached to this acknowledgement letter. These forms are also available online at: www.dep.state.fl.us/water/stormwater/npdes/industrial6.htm. You must complete the applicable forms and send them to the following address by March 31st of the year following your monitoring period or year. For example, analytical monitoring results for 2013 would be due no later than March 31, 2014.

NPDES Stormwater MSGP DMR, MS #2511
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

If you have any questions concerning this acknowledgment letter, please contact the NPDES Stormwater Notices Center at (866) 336-6312.

Sincerely,

A handwritten signature in cursive script that reads "B. Allen".

Brittney Allen
Data Entry Operator
NPDES Stormwater Program

APPENDIX 10.6.5
MARINE TURTLE PERMIT



Marine Turtle Permit

Florida Fish and Wildlife Conservation Commission
Imperiled Species Management Section - Tequesta Field Laboratory
19100 SE Federal Highway
Tequesta, Florida 33469
(561) 882-5975

Permittee: DAVID BRUZEK
DUKE ENERGY FLORIDA
299 FIRST AVENUE NORTH, FL-903
SAINT PETERSBURG, FLORIDA 33701
UNITED STATES

Permit#: MTP-14-042
Effective Date: 01/01/2014
Expiration Date: 12/31/2014

Is Authorized to:

1. conduct stranding/salvage activities; and
2. tag turtles using external flipper tags.

Authorized Nesting Survey

Area: None.

Permittee Signature: David Bruzek Date: 12/31/13

Not valid unless signed. By signature, the permittee confirms that all information provided to issue the permit is accurate and complete, and indicates acceptance and understanding of the provisions and conditions listed below. **Any false statements or misrepresentations when applying for this permit may result in felony charges and will result in revocation of this permit.**

By signature, I acknowledge that I have read and understand this permit. Signature of this permit indicates that I and all authorized personnel listed below have read and agree to abide by all Florida Fish and Wildlife Conservation Commission (FWC) 'SeaTurtle Conservation Guidelines' that pertain to the authorized activity(s) listed on this marine turtle permit. I understand that it is my responsibility to transmit all future information updates to all authorized personnel listed on my permit. **Permittee must provide a signed copy of this permit to the FWC address above to activate this permit.**

Authorized By: ROBBIN TRINDELL

Authorized for: Nick Wiley, Executive Director

Authorizing Signature: Robbin N. Trindell Date: 12/27/2013
Marine Turtle Permit

Authorized Research Projects:

1. Crystal River Energy Complex intake screens monitoring, initiated 2000.

Authorized Monitoring Projects: None.

Authorized Personnel:

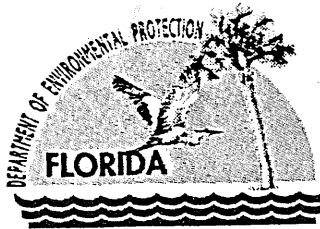
Eric Latimer; Cindy Armstrong.

PERMIT CONDITIONS AND PROVISIONS:

- 1 Permitted individuals must adhere to the FWC marine turtle permit guidelines developed under a Section 6 Cooperative Agreement between FWC and the U.S. Fish and Wildlife Service.

A person whose substantial interests are affected by FWC's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. A person seeking a hearing on FWC's action shall file a petition for hearing with the agency within 21 days of receipt of written notice of the decision. The petition must contain the information and otherwise comply with section 120.569, Florida Statutes, and the uniform rules of the Florida Division of Administration, chapter 28-106, Florida Administrative Code. If the FWC receives a petition, FWC will notify the Permittee. Upon such notification, the Permittee shall cease all work authorized by this permit until the petition is resolved. The enclosed Explanation of Rights statement provides additional information as to the rights of parties whose substantial interests are or may be affected by this action.

APPENDIX 10.6.6
MANATEE PROTECTION PLAN



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

In the matter of:
Approval of Florida Power Crystal River Plant
Manatee Protection Plan

DEP Permit Nos. FL0000159 (Units 1, 2, & 3)
and FL0036366 (Units 4 & 5)
Citrus County

Mr. Kent Hedrick
Florida Power
P. O. Box 14042
St. Petersburg, FL 33733-4042

NOTICE OF AGENCY ACTION

The Department of Environmental Protection hereby gives notice of its approval of the enclosed Manatee Protection Plan for the Florida Power Crystal River Plant (Units 1, 2, 3, 4, & 5), dated June 22, 2001. The Manatee Protection Plan was completed pursuant to Specific Condition 14 of Permit Number FL0036366 and Specific Condition 16 of Permit Number FL0000159.

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

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

A petition must contain the following information:

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

"More Protection, Less Process"

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

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

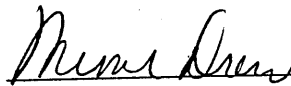
Mediation under section 120.573 of the Florida Statutes is not available for this proceeding.

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

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Mimi Drew
Director
Division of Water Resource Management

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF AGENCY ACTION and all copies were mailed before the close of business on 05-13-02 to the listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

<u>S. Shields</u>	<u>05-13-02</u>
(Clerk)	(Date)

Copies furnished to:

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

Florida Power Corporation - Crystal River Power Plant
Secondary Warm Water Refuge
Manatee Protection Plan
Rev. 6/22/01

Purpose:

The purpose of this Manatee Protection Plan is to set forth Florida Power Corporation's procedures to comply with Specific Condition 13 of the facility's NPDES Permit Numbers FL0000159 and FL0036366. This Specific Condition reads:

13. The permittee shall develop a plan and procedures addressing potential manatee impacts. The plan shall include an implementation schedule and shall address:
- (a) Reporting of intake and discharge water temperatures during the winter, as currently monitored by the Permittee.
 - (b) Provision of gross bathymetry for the discharge canal, using currently available information.
 - (c) Provision of a thermal infrared aerial photograph taken during the winter, as close to the passage of a cold front as possible.
 - (d) precautions to minimize hazards to manatees at intake and outfall areas.
 - (e) timely communication to manatee recovery program personnel of any long term changes in the availability of warm water.
 - (f) Provision to allow access for staff from the Florida Department of Environmental Protection (DEP), Florida Fish and Wildlife Conservation Commission (FWC) and the U. S. Fish and Wildlife Service (FWS) to conduct manatee monitoring and research activities.

The plan shall be developed and submitted to DEP and FWS within six (6) months from the issuance date of this permit. DEP shall review the plan within 60 days of its receipt and shall, in writing, either approve the plan or notify the permittee of deficiencies that must be corrected. The permittee shall either make such corrections and re-submit the plan within 60 days of DEP's notification or file a petition for formal or informal administrative proceeding, pursuant to Chapter 120, F.S., and Chapter 62-103, Florida Administrative Code, if it disagrees with or otherwise disputes DEP's determination. The petition must conform to the requirements of rule 62-103.155, F.A.C., and must be received by DEP's Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, within twenty-one (21) days after receipt of written notice. Failure to file a petition within this time period shall constitute a waiver by the permittee of its right to request an administrative proceeding under chapter 120, F.S. The plan shall be implemented according to the proposed schedule upon expiration of the 21-day time period following DEP's determination if no petition is filed, or DEP's final order entered after any administrative hearing held pursuant to this paragraph.

Copies of the final plan shall be maintained at the plant site and submitted to DEP, FWS and FWC at the following addresses.

U.S. Fish and Wildlife Service
6620 Southport Drive, South
Suite 310
Jacksonville, FL 32216
Attention: Jim Valade

Florida Fish and Wildlife
Commission OES - BPS
620 South Meridian Street
Tallahassee, FL 32399-1600
Attention: Ron Mezich

Florida Department of Environmental
Protection, Bureau of Water Facilities
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Attention: Michael Hatcher

Florida Power Corporation - Crystal River Power Plant
Secondary Warm Water Refuge
Manatee Protection Plan
Rev. 6/22/01

Compliance With Specific Condition 13:

This Manatee Protection Plan will be in effect during the term of the permit (FL0002992). From November 15 through March 31 each year:

- a) Florida Power Corporation will provide copies of the monthly Discharge Monitoring Reports to the BPSM each winter from the period of November 15 through March 31.
- b) Florida Power Corporation will, within two (2) years of the effective date of this plan, provide a thermal infrared aerial photograph of the Crystal River discharge taken during the winter as close to the passage of a cold front as possible, as well as its gross bathymetry, at the mean rate of discharge when the ambient water temperature reaches a seasonal low.
- c) Should Florida Power Corporation decide to retire the Crystal River units, notice will be provided to FDEP, BPSM and USFWS as soon as practical after a definite decision is made or, if possible, at least five years prior to the date of retirement.
- d) If an unplanned shutdown occurs that is expected to result in no thermal discharge for 24 hours or longer, regardless of the ambient water temperature, FMRI should be notified within 24 hours of the shutdown at the contact numbers listed below.

FMRI: (727) 893-2904

- e) The DEP and BPSM shall be provided a schedule of any anticipated in-water work within the discharge canal during the period of November 15 through March 31 each year. No major in-water maintenance work shall occur in the discharge canal from November 15 through March 31, unless it is considered essential by Crystal River Power Plant and approved by BPSM prior to the start of work. However, minor routine work which is necessary to maintain compliance with the facility's NPDES Permit, such as replacement and maintenance of thermal monitoring equipment or cleaning of intake and discharge structures, may be performed without notification. Performance of such minor routine in-water work must be in compliance with the attached Standard Manatee Construction Conditions. If major in-water work is necessitated by emergency conditions, the BPSM will be notified and consulted no later than two weeks following the commencement of the activity. All vessels used in the operation or associated with the activity shall be operated pursuant to the attached Standard Manatee Construction Conditions.
- f) Florida Power Corporation will provide personnel from the BPSM, USFWS, Florida Marine Research Institute (FMRI), U. S. Geological Service (USGS)-Sirenia Project, or a designee of these agencies access to the Crystal River Power Plant Site to conduct manatee research or monitoring activities including placing, maintaining and downloading data from temperature data loggers. If utilized at the Crystal River Facility, these temperature data loggers will be used to collect air and water temperature data in an ongoing research effort to better understand manatee behavior patterns in response to artificial warm water refugia and environmental variables. The temperature data loggers would be placed in the discharge canal and at designated control (ambient) locations. Access shall be limited to normal business hours (8:00am - 5:00pm) unless arrangements are made in advance with plant personnel.

**Florida Power Corporation - Crystal River Power Plant
Secondary Warm Water Refuge
Manatee Protection Plan
Rev. 6/22/01**

- g) Intake and Discharge Areas: If a distressed (i.e.; injured, orphaned, cold stress) animal(s) are observed at any time, the following notifications should be made:
- FWC - Florida Marine Research Institute - Marine Mammal Pathology Lab: (727) 893-2904
- USFWS - Jacksonville Field Office: (904) 232-2580
- h) Florida Power Corporation will provide phone numbers for weekday and weekend notification of appropriate plant personnel for the purpose of allowing FWC or FWS to coordinate manatee rescue operations as necessary.
- i) Within thirty days of approval of this plan, provide a site map of the facility as a part of the plan. Additionally, the site map will be updated and resubmitted to the DEP and BPSM within thirty days of any significant physical or operational changes to the facility which have the potential to affect manatees. The site map will include the following information:
- j) The location of the intake pipes and outfall pipes.
Proximate streams, rivers, bays, etc.
The location of the condenser inlet and outlet temperature monitoring stations.
The location of any fuel barge docking facilities in relation to the discharge canal.
The delineation of the no-entry boundary at the discharge canal.

**FLORIDA POWER CORPORATION – CRYSTAL RIVER PLANT
MANATEE PROTECTION PLAN**

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

The permittee shall comply with the following manatee protection conditions:

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

APPENDIX 10.6.7

**NATIONAL MARINE FISHERIES SERVICE
BIOLOGICAL OPINION**



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

September 19, 2002

Mr. Dale E. Young, Vice President
Crystal River Nuclear Plant (NA1B)
ATTN: Supervisor, Licensing & Regulatory Programs
15760 W. Power Line Street
Crystal River, Florida 34428-6708

**SUBJECT: CRYSTAL RIVER UNIT 3 - SECTION 7 CONSULTATION UNDER THE
ENDANGERED SPECIES ACT REGARDING SEA TURTLES AT THE CRYSTAL
RIVER ENERGY COMPLEX (TAC NO. MB1562)**

Dear Mr. Young

Enclosed is a copy of the National Marine Fisheries Service's (NMFS's) Biological Opinion, which was issued August 8, 2002. This Opinion is a reinitiation of consultation subsequent to the June 1999 Opinion. The U.S. Nuclear Regulatory Commission formally requested reinitiation on April 2, 2001, because of a possibility that the Crystal River Energy Complex (CREC) would exceed the NMFS anticipated incidental take levels for live turtles established in the Incidental Take Statement of the June 1999 Opinion.

The August 8, 2002, Opinion states the NMFS belief that the continued operation of the cooling water intake system located near the Gulf of Mexico is not likely to jeopardize the continued existence of the five species of sea turtles found at CREC. However, it revises the Incidental Take Statement and modifies some of the Terms and Conditions of the previous Opinion. These should be evaluated for the potential need to revise the Crystal River Unit 3 Technical Specifications and plant procedures. If you have any questions following review of the document, please contact me at (301) 415-2020.

Sincerely,

A handwritten signature in cursive script that reads "Brenda Mozafari".

Brenda L. Mozafari, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosure: NMFS Biological Opinion

cc w/o encl: J. Powers, NMFS

cc: See next page



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive North
St. Petersburg, FL 33702
(727) 570-5312; FAX 570-5517
<http://caldera.sero.nmfs.gov>

AUG 18 2002

F/SER3:BH:tg

Mr. Herbert N. Berkow, Director
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission
Washington, D.C. 20555-0001

50-302

Dear Mr. Berkow:

This document represents the National Marine Fisheries Service's (NOAA Fisheries) biological opinion (Opinion) based on your request for reinitiation of Endangered Species Act (ESA) section 7 consultation for the operation of the Crystal River Energy Complex's (CREC) cooling water intake system located near the Gulf of Mexico in Citrus County, Florida, and its effects on loggerhead turtles (*Caretta caretta*), Kemp's ridley turtles (*Lepidochelys kempii*), leatherback turtles (*Dermochelys coriacea*), hawksbill turtles (*Eretmochelys imbricata*), and green turtles (*Chelonia mydas*). This Opinion has been prepared in accordance with section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1536 *et seq.*). The NOAA Fisheries consultation number for this action is F/SER/2001/01080. If you have any questions about this consultation, please refer to this number.

This Opinion is based on information provided in a letter from the Nuclear Regulatory Commission (NRC) dated October 11, 2001, with an attached biological assessment; phone conversations and meetings between NOAA Fisheries staff, NRC staff, and CREC staff; published and unpublished scientific information on the biology and ecology of threatened and endangered turtles within the action area; and other sources of information. A complete administrative record of this consultation is on file at the NOAA Fisheries' Southeast Regional Office in St. Petersburg, Florida.

The Opinion states NOAA Fisheries' belief that the proposed action is not likely to jeopardize the continued existence of loggerhead, Kemp's ridley, green, hawksbill and leatherback sea turtles. However, NOAA Fisheries anticipates incidental takes of these species and has issued an Incidental Take Statement (ITS), pursuant to section 7 of the ESA. This ITS contains reasonable and prudent measures with implementing terms and conditions to help minimize this take.

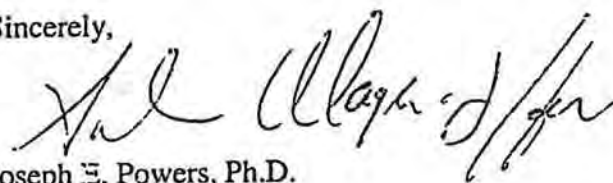
Incidental takes of marine mammals are not authorized. If the NRC believes such takes may occur, an incidental take authorization under Marine Mammal Protection Act, Section 101 (a)(5),



IE23
Per B. Mozafari

is necessary. In this regard, please contact Ken Hollingshead of our headquarters Protected Resources staff at (301) 713-2055.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Powers" with a stylized flourish at the end.

Joseph E. Powers, Ph.D.
Acting Regional Administrator

Enclosure

cc: F/PR3
o:\section7\formal\crys2002.wpd
File: 1514.22.m.3

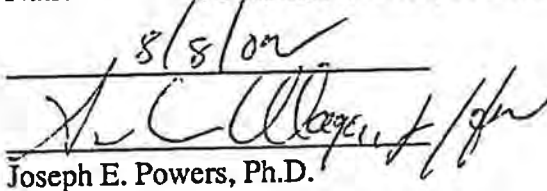
**Endangered Species Act - Section 7 Consultation
Biological Opinion**

Agency: United States Nuclear Regulatory Commission

Activity: Cooling water intake system at the Crystal River Energy Complex (F/SER/2001/01080)

Consultation Conducted By: National Marine Fisheries Service, Southeast Region

Date Issued: 8/8/01

Approved By: 
Joseph E. Powers, Ph.D.
Acting Regional Administrator

This document represents the National Marine Fisheries Service's (NOAA Fisheries) biological opinion (Opinion) based on our review of the operation of the Crystal River Energy Complex's (CREC) cooling water intake system located near the Gulf of Mexico in Citrus County, Florida, and its effects on loggerhead turtles (*Caretta caretta*), Kemp's ridley turtles (*Lepidochelys kempii*), leatherback turtles (*Dermochelys coriacea*), hawksbill turtles (*Eretmochelys imbricata*), and green turtles (*Chelonia mydas*). This Opinion has been prepared in accordance with section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1536 *et seq.*). The NOAA Fisheries consultation number for this action is F/SER/2001/01080. If you have any questions about this consultation, please refer to this number.

History of the Consultation

In a letter dated April 2, 2001, the Nuclear Regulatory Commission (NRC) reinitiated ESA section 7 consultation for the operation of the CREC cooling water intake system. The NOAA Fisheries, Southeast Regional Office (SERO), Protected Resources Division received this letter on April 9, 2001. The NRC reinitiated consultation because it felt that CREC would exceed the incidental take levels for live turtles issued with the June 16, 1999, incidental take statement (ITS) that concluded the no jeopardy Opinion issued for the operation of CREC's cooling water intake system. In a letter dated April 9, 2001, NOAA Fisheries agreed that CREC would likely exceed its ITS levels and agreed that reinitiation of section 7 consultation was warranted.

NOAA Fisheries staff met with CREC and NRC staff at the CREC facility on May 9, 2001. During this meeting NOAA Fisheries staff requested an update of NRC's and CREC's October 1998 biological assessment (BA) in order to complete a formal section 7 consultation. NOAA

Fisheries received the updated BA on October 22, 2001, and considers this information to be a complete initiation package. This Opinion is based on information provided in the letter from the NRC dated October 11, 2001, with the attached BA; phone conversations and meetings between NOAA Fisheries staff, NRC staff, and CREC staff; published and unpublished scientific information on the biology and ecology of threatened and endangered turtles within the action area; and other sources of information. A complete administrative record of this consultation is on file at the NOAA Fisheries' Southeast Regional Office in St. Petersburg, Florida.

I. Description of the Proposed Action

The Proposed Action

The CREC contains five separate power plants. Unit 1 is an approximately 400 MW electric (MWe) coal-fueled plant. Unit 2 is an approximately 500 MWe coal-fueled plant. Unit 3 is an approximately 890 MWe pressurized water, nuclear-fueled plant. Units 4 and 5 are coal-fueled plants rated at approximately 640 MWe each. This consultation will analyze the cooling water intake systems for Units 1, 2, and 3.

The intake structures for Units 1, 2, and 3 are concrete structures with bar racks, traveling screens, and seawater pump components. Surface water trash barriers are deployed in front of the bar racks to collect large floating debris. Water is drawn from the intake canal through the bar racks, through the traveling screens, into the pumps, and then flows through the plant's condensers and auxiliary systems. The water is then discharged through an outfall into the discharge canal. The discharge canal directs water back to the Gulf of Mexico.

The intake bar racks prevent trash and large debris carried by the seawater from entering the intake structure. The seawater must pass through the bar racks which are made of steel bars spaced on 4-inch centers. The bar racks extend from well above the water line to the concrete base at the bottom of the intake canal. Debris and marine life smaller than the bar rack openings pass through the bar racks. The traveling screens effectively remove this floating or suspended debris from the intake water. Intake water passing through these screens suspends debris and solid materials onto the screens. The screens are conveyed upwards to an overlapping water spray system which washes these materials off the screens and into a debris trough. The traveling screen system is operated approximately three times a day.

Each of the three plants that use seawater for cooling have four large circulating pumps used to draw seawater into the plant. The water is then pumped through the condensers and out to the discharge canal. On Units 1 and 2, the total design flow is 638,000 gallons per minute (gpm). Unit 3 design flow is 680,000 gpm. In addition, Unit 3 has a low flow nuclear services water pumping system with a normal flow rate of approximately 10,000 gpm. Under emergency conditions, additional pumps would increase this flow up to approximately 20,000 gpm. From the discharge of the pumps, the water flows to the main condensers; and for Unit 3, an additional flow path exists for the nuclear services and decay heat cooling water heat exchangers. After the

seawater passes through the tubes of the condenser and/or heat exchangers, the seawater is transported in underground pipes to the discharge canal. The discharge canal directs the water back to the Gulf of Mexico.

The bar racks are inspected 24 hours a day during times of high turtle concentrations in the intake canal (February through May) and once every two hours during other times of the year. If a turtle is stranded on the bar racks, it is immediately recovered with dip nets. Healthy turtles are placed in a holding tank at the CREC Mariculture Center, where Mariculture Center Staff members determine the proper disposition of the turtle, in conjunction with Florida Fish and Wildlife Conservation Commission (FWC) personnel. Non-healthy turtles are also taken to the Mariculture Center with disposition to be determined by FWC. Dead turtles are sent to the Mariculture Center and picked up by FWC.

Action Area

The CREC is located on an approximate 5,000-acre site near the Gulf of Mexico in Citrus County, Florida. The Complex is approximately 7.5 miles northwest of the city of Crystal River, within the coastal salt marsh area of west central Florida. The action area consists of 3 of the 5 power plants (Plants 1, 2 and 3) that make up CREC, the 2.8-mile discharge canal, and the intake canal and intake structures, which includes the bar racks, traveling screens, and sea water pump components. The intake canal is a dredged canal approximately 14 miles long with an average depth of 20 feet (the area of the intake canal has a natural rock bottom starting under the initial layer of sand and sediment. The depth of the sand and sediment layer varies greatly in the area. The canal was dredged through the sand and sediment leaving a rock bottom that extends the length of the canal). The canal is bordered on both sides by land beginning from the plant site and extending 3 miles to the west. The canal then extends westward an additional 11 miles out into the Gulf of Mexico.

II. Status of the Species

The following endangered and threatened marine mammal, sea turtle, and marine plant species under the jurisdiction of NOAA Fisheries are known to occur in or near the action area:

<u>Common Name</u>	<u>Scientific Name</u>
<u>Endangered</u>	
Green sea turtle	<i>Chelonia mydas*</i>
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>
Leatherback sea turtle	<i>Dermochelys coriacea</i>
Right whale	<i>Eubalaena glacialis</i>
Humpback whale	<i>Megaptera novaeangliae</i>

Sperm whale

Physeter macrocephalus

Threatened

Loggerhead sea turtle

Caretta caretta

Gulf sturgeon

Acipenser oxyrinchus desotoi

Critical Habitat

There is no critical habitat in the action area.

** Green turtles in U.S. waters are listed as threatened except for the Florida breeding population, which is listed as endangered. Due to the inability to distinguish between the populations away from the nesting beaches, green turtles are considered endangered wherever they occur in U.S. waters.*

Sperm whales (*Physeter macrocephalus*), occur in the Gulf of Mexico but are rare in state waters. Other endangered whales, including North Atlantic right whales (*Eubalaena glacialis*) and humpback whales (*Megaptera novaengliae*), have been observed occasionally in the Gulf of Mexico. The individuals observed have likely been inexperienced juveniles straying from the normal range of these stocks. NOAA Fisheries does not believe that there are resident stocks of these species in the Gulf of Mexico; therefore, these species are not likely to be adversely affected by projects in the Gulf. Based on this information, NOAA Fisheries believes that the chance of the proposed action affecting listed species of large whales is discountable.

Although the Gulf sturgeon's migratory habits are not well known, NOAA Fisheries believes it is unlikely that Gulf sturgeon will stray from mud and sand bottom marine foraging areas in the Gulf to enter the rocky bottomed intake canal of the CREC and subsequently be affected by the cooling water intake system. Studies conducted by CREC from 1980 to 1983, to determine the species of fish and invertebrates affected by the cooling water system, showed no evidence of Gulf sturgeon. Based on this information, NOAA Fisheries believes that the chance of the proposed action adversely affecting Gulf sturgeon is discountable. Therefore, the remainder of the analysis in this Opinion will focus on the five species of sea turtles in or near the action area.

A. Species/critical habitat description

Loggerhead Sea Turtle

The loggerhead sea turtle was listed as a threatened species in 1978. This species inhabits the continental shelves and estuarine environments along the margins of the Atlantic, Pacific, and Indian oceans, and within the continental United States it nests from Louisiana to Virginia. The major nesting areas include coastal islands of Georgia, South Carolina, and North Carolina, and the Atlantic and Gulf coasts of Florida, with the bulk of the nesting occurring on the Atlantic

coast of Florida. Developmental habitat for small juveniles are the pelagic waters of the North Atlantic and the Mediterranean Sea.

There is no critical habitat designated for the loggerhead sea turtle.

Green Sea Turtle

Federal listing of the green sea turtle occurred on July 28, 1978, with all populations listed as threatened except for the Florida and Pacific coast of Mexico breeding populations which are endangered. The complete nesting range of the green turtle within the NOAA Fisheries' Southeast Region includes sandy beaches of mainland shores, barrier islands, coral islands, and volcanic islands between Texas and North Carolina and at the U.S. Virgin Islands (U.S.V.I.) and Puerto Rico (NOAA Fisheries and USFWS 1991a). Principal U.S. nesting areas for green turtles are in eastern Florida, predominantly Brevard through Broward counties (Ehrhart and Witherington 1992). Regular green turtle nesting also occurs on St Croix, U.S.V.I., and on Vieques, Culebra, Mona, and the main island of Puerto Rico (Mackay and Rebholz 1996, Díez pers. comm.).

Critical habitat for the green sea turtle has been designated for the waters surrounding Isla Culebra, Puerto Rico, and its associated keys.

Kemp's Ridley Sea Turtle

The Kemp's ridley was listed as endangered on December 2, 1970. Internationally, the Kemp's ridley is considered the most endangered sea turtle (Zwinnenberg 1977, Groombridge 1982). Kemp's ridleys nest in daytime aggregations known as arribadas, primarily at Rancho Nuevo, a stretch of beach in Mexico, Tamaulipas State. The species occurs mainly in coastal areas of the Gulf of Mexico and the northwestern Atlantic Ocean. Occasional individuals reach European waters (Brongersma 1972). Adults of this species are usually confined to the Gulf of Mexico, although adult-sized individuals sometimes are found on the Eastern Seaboard of the United States.

There is no designated critical habitat for the Kemp's ridley sea turtle.

Leatherback Sea Turtle

The leatherback was listed as endangered on June 2, 1970. Leatherbacks are widely distributed throughout the oceans of the world, and are found in waters of the Atlantic, Pacific, and Indian oceans; the Caribbean Sea; and the Gulf of Mexico (Ernst and Barbour 1972). Adult leatherbacks forage in temperate and subpolar regions from 71°N to 47°S latitude in all oceans and undergo extensive migrations between 90°N and 20°S, to and from the tropical nesting beaches. In the Atlantic Ocean, leatherbacks have been recorded as far north as Newfoundland, Canada, and Norway, and as far south as Uruguay, Argentina, and South Africa (see NOAA

Fisheries, SEFSC 2001). Female leatherbacks nest from the southeastern United States to southern Brazil in the western Atlantic and from Mauritania to Angola in the eastern Atlantic. The most significant nesting beaches in the Atlantic, and perhaps in the world, are in French Guiana and Suriname (see NOAA Fisheries, SEFSC 2001).

Critical habitat for the leatherback includes the waters adjacent to Sandy Point, St. Croix, U.S.V.I.

Hawksbill Sea Turtles

The hawksbill turtle is listed as endangered under the ESA, and is considered Critically Endangered by the International Union for the Conservation of Nature (IUCN) based on global population declines of over 80% during the last three generations (105 years) (Meylan and Donnelly 1999). Only five regional nesting populations remain with more than 1,000 females nesting annually (Seychelles, Mexico, Indonesia, and two in Australia) (Meylan and Donnelly 1999). Most populations are declining, depleted, or remnants of larger aggregations. Although hawksbills are subject to the suite of threats that affect other marine turtles, the decline of the species is primarily attributed to centuries of exploitation for tortoiseshell, the beautifully patterned scales that cover the turtle's shell (Parsons 1972).

Critical habitat for the hawksbill includes the waters around Mona and Monito Islands, Puerto Rico.

B. Life history

Loggerhead Sea Turtle

Mating takes place in late March-early June, and eggs are laid throughout the summer, with a mean clutch size of 100-126 eggs in the southeastern United States. Individual females nest multiple times during a nesting season, with a mean of 4.1 nests/nesting individual (Murphy and Hopkins 1984). Nesting migrations for an individual female loggerhead are usually on an interval of 2-3 years, but can vary from 1-7 years (Dodd 1988). Loggerhead sea turtles originating from the western Atlantic nesting aggregations are believed to lead a pelagic existence in the North Atlantic Gyre for as long as 7-12 years or more, but there is some variation in habitat use by individuals at all life stages. Turtles in this life history stage are called "pelagic immatures." Stranding records indicate that when pelagic immature loggerheads reach 40-60 cm straight-line carapace length they begin to recruit to coastal inshore and nearshore waters of the continental shelf throughout the U.S. Atlantic and Gulf of Mexico.

Benthic immature loggerheads, the life stage following the pelagic immature stage, have been found from Cape Cod, Massachusetts, to southern Texas, and occasionally strand on beaches in northeastern Mexico. Large benthic immature loggerheads (70-91 cm) represent a larger proportion of the strandings and in-water captures (Schroeder et al. 1998) along the south and

western coasts of Florida as compared with the rest of the coast, which could indicate that the larger animals are either more abundant in these areas or just more abundant within the area relative to the smaller turtles. Benthic immature loggerheads foraging in northeastern U.S. waters are known to migrate southward in the fall as water temperatures cool (Epperly et al. 1995b, Keinath 1993, Morreale and Standora 1999, Shoop and Kenney 1992), and migrate northward in spring. Past literature gave an estimated age at maturity of 21-35 years (Frazer and Ehrhart 1985, Frazer et al. 1994) and the benthic immature stage as lasting at least 10-25 years. However, NOAA Fisheries, SEFSC (2001) reviewed the literature and constructed growth curves from new data, estimating ages of maturity ranging from 20-38 years and benthic immature stage lengths from 14-32 years.

Juveniles are omnivorous and forage on crabs, mollusks, jellyfish, and vegetation at or near the surface (Dodd 1988). Sub-adult and adult loggerheads are primarily coastal and typically prey on benthic invertebrates such as mollusks and decapod crustaceans in hard bottom habitats.

Green Sea Turtle

Green sea turtle mating occurs in the waters off the nesting beaches. Each female deposits 1-7 clutches (usually 2-3) during the breeding season at 12-14 day intervals. Mean clutch size is highly variable among populations, but averages 110-115. Females usually have 2-4 or more years between breeding seasons, while males may mate every year (Balazs 1983). After hatching, green sea turtles go through a post-hatchling pelagic stage where they are associated with drift lines of algae and other debris

Green turtle foraging areas in the southeast United States include any neritic waters having macroalgae or sea grasses near mainland coastlines, islands, reefs, or shelves, and any open-ocean surface waters, especially where advection from wind and currents concentrates pelagic organisms (Hirth 1997, NOAA Fisheries and USFWS 1991). Principal benthic foraging areas in the region include Aransas Bay, Matagorda Bay, Laguna Madre, and the Gulf inlets of Texas (Doughty 1984, Hildebrand 1982, Shaver 1994), the Gulf of Mexico off Florida from Yankeetown to Tarpon Springs (Caldwell and Carr 1957, Carr 1984), Florida Bay and the Florida Keys (Schroeder and Foley 1995), the Indian River Lagoon System, Florida (Ehrhart 1983), and the Atlantic Ocean off Florida from Brevard through Broward counties (Wershoven and Wershoven 1992, Guseman and Ehrhart 1992). Adults of both sexes are presumed to migrate between nesting and foraging habitats along corridors adjacent to coastlines and reefs. Age at sexual maturity is estimated to be between 20 to 50 years (Balazs 1982, Frazer and Ehrhart 1985).

Green sea turtles are primarily herbivorous, feeding on algae and sea grasses, but also occasionally consume jellyfish and sponges. The post-hatchling, pelagic-stage individuals are assumed to be omnivorous, but little data are available.

Kemp's Ridley Sea Turtle

Remigration of females to the nesting beach varies from annually to every 4 years, with a mean of 2 years (TEWG 1998). Nesting occurs from April into July and is essentially limited to the beaches of the western Gulf of Mexico, near Rancho Nuevo in southern Tamaulipas, Mexico. The mean clutch size for Kemp's ridleys is 100 eggs/nest, with an average of 2.5 nests/female/season.

Juvenile/subadult Kemp's ridleys have been found along the Eastern Seaboard of the United States and in the Gulf of Mexico. Atlantic juveniles/subadults travel northward with vernal warming to feed in the productive, coastal waters of Georgia through New England, returning southward with the onset of winter to escape the cold (Lutcavage and Musick 1985, Henwood and Ogren 1987, Ogren 1989). In the Gulf, juvenile/subadult ridleys occupy shallow, coastal regions. Ogren (1989) suggested that in the northern Gulf they move offshore to deeper, warmer water during winter. Studies suggest that subadult Kemp's ridleys stay in shallow, warm, nearshore waters in the northern Gulf of Mexico until cooling waters force them offshore or south along the Florida coast (Renaud 1995). Little is known of the movements of the post-hatching, planktonic stage within the Gulf. Studies have shown the post-hatchling pelagic stage varies from 1-4 or more years, and the benthic immature stage lasts 7-9 years (Schmid and Witzell 1997). The Turtle Expert Working Group (1998) (TEWG) estimates age at maturity to range from 7-15 years.

Stomach contents of Kemp's ridleys along the lower Texas coast consisted of a predominance of nearshore crabs and mollusks, as well as fish, shrimp and other foods considered to be shrimp fishery discards (Shaver 1991). Pelagic stage, neonatal Kemp's ridleys presumably feed on the available Sargassum and associated infauna or other epipelagic species found in the Gulf of Mexico.

Leatherback Sea Turtle

Female leatherbacks nest from the southeastern United States to southern Brazil in the western Atlantic and from Mauritania to Angola in the eastern Atlantic, with nesting occurring as early as late February or March. When they leave the nesting beaches, leatherbacks move offshore but eventually utilize both coastal and pelagic waters. Very little is known about the pelagic habits of the hatchlings and juveniles, and they have not been documented to be associated with the Sargassum areas as are other species. Leatherbacks are deep divers, with recorded dives to depths in excess of 1,000 m (Eckert et al. 1989), but they may come into shallow waters if there is an abundance of jellyfish nearshore.

Although leatherbacks are a long-lived species (> 30 years), they are somewhat faster to mature than loggerheads. Leatherbacks have an estimated age at sexual maturity reported of about 13-14 years for females, with 9 years reported as a likely minimum (Zug 1996) and 19 years as a likely maximum (NOAA Fisheries, SEFSC 2001). They nest frequently (up to 7 nests per year) during

a nesting season and nest about every 2-3 years. During each nesting, they produce 100 eggs or more in each clutch and, thus, can produce 700 eggs or more per nesting season (Schultz 1975).

Leatherback sea turtles feed primarily on jellyfish as well as cnidarians and tunicates. They are also the most pelagic of the turtles, but have been known to enter coastal waters on a seasonal basis to feed in areas where jellyfish are concentrated.

Hawksbill Sea Turtles

The life history of hawksbills consists of a pelagic stage that lasts from the time they leave the nesting beach as hatchlings until they are approximately 22-25 cm in straight carapace length (Meylan 1988, Meylan in prep.), followed by residency in developmental habitats (foraging areas where immatures reside and grow) in coastal waters. Adult foraging habitat, which may or may not overlap with developmental habitat, is typically coral reefs, although other hard-bottom communities and occasionally mangrove-fringed bays may be occupied. Hawksbills show fidelity to their foraging areas over periods of time as great as several years (van Dam and Díez 1998).

Hawksbills may undertake developmental migrations (migrations as immatures) and reproductive migrations that involve travel over hundreds or thousands of kilometers (Meylan 1999b). Reproductive females undertake periodic (usually non-annual) migrations to their natal beach to nest. Movements of reproductive males are less well known, but are presumed to involve migrations to the nesting beach or to courtship stations along the migratory corridor. Females nest an average of 3-5 times per season with some geographic variation in this parameter (see references on pp. 204-205, Meylan and Donnelly 1999; Richardson et al. 1999). Clutch size is higher on average (up to 250 eggs) than that of green turtles (Hirth 1980). Reproductive females may exhibit a high degree of fidelity to their nest sites. This, plus the tendency of hawksbills to nest at regular intervals within a season, make them vulnerable to capture on the nesting beach.

C. Population dynamics, status, and distribution

Loggerhead Sea Turtle

Loggerhead sea turtles occur throughout the temperate and tropical regions of the Atlantic, Pacific, and Indian oceans and are the most abundant species of sea turtle occurring in U.S. waters. Loggerhead sea turtles concentrate their nesting in the north and south temperate zones and subtropics, but generally avoid nesting in tropical areas of Central America, northern South America, and the Old World (Magnuson et al. 1990).

In the western Atlantic, most loggerhead sea turtles nest from North Carolina to Florida and along the Gulf coast of Florida. There are five western Atlantic subpopulations, divided geographically as follows: (1) a northern nesting subpopulation, occurring from North Carolina to northeast Florida at about 29° N (approximately 7,500 nests in 1998); (2) a south Florida

nesting subpopulation, occurring from 29° N on the east coast to Sarasota on the west coast (approximately 83,400 nests in 1998); (3) a Florida Panhandle nesting subpopulation, occurring at Eglin Air Force Base and the beaches near Panama City, Florida (approximately 1,200 nests in 1998); (4) a Yucatán nesting subpopulation, occurring on the eastern Yucatán Peninsula, Mexico (Márquez 1990) (approximately 1,000 nests in 1998) (TEWG 2000); and (5) a Dry Tortugas nesting subpopulation, occurring in the islands of the Dry Tortugas, near Key West, Florida (approximately 200 nests per year) (NOAA Fisheries, SEFSC 2001). Natal homing of females to the nesting beach provides the barrier between these subpopulations, preventing recolonization with turtles from other nesting beaches.

Based on the data available, it is difficult to estimate the size of the loggerhead sea turtle population in the United States or its territorial waters. There is, however, general agreement that the number of nesting females provides a useful index of the species' population size and stability at this life stage. Nesting data collected on index nesting beaches in the United States from 1989-1998 represent the best data set available to index the population size of loggerhead sea turtles. However, an important caveat for population trends analysis based on nesting beach data is that this may reflect trends in adult nesting females but not reflect overall population growth rates. Given this caveat, between 1989 and 1998, the total number of nests laid along the U.S. Atlantic and Gulf coasts ranged from 53,014 to 92,182 annually, with a mean of 73,751. On average, 90.7% of these nests were from the south Florida subpopulation, 8.5% were from the northern subpopulation, and 0.8% were from the Florida Panhandle nest sites. There is limited nesting throughout the Gulf of Mexico west of Florida, but it is not known to which subpopulation the turtles making these nests belong.

The number of nests in the northern subpopulation from 1989 to 1998 was 4,370 to 7,887, with a 10-year mean of 6,247 nests. With each female producing an average of 4.1 nests in a nesting season, the average number of nesting females per year in the northern subpopulation was 1,524. The total nesting and non-nesting adult female population is estimated as 3,810 adult females in the northern subpopulation (TEWG 1998, 2000). The northern population, based on number of nests, has been classified as stable or declining (TEWG 2000). Another consideration adding to the vulnerability of the northern subpopulation is that NOAA Fisheries' scientists estimate that the northern subpopulation produces 65% males, while the south Florida subpopulation is estimated to produce 80% females (NOAA Fisheries, SEFSC 2001).

The southeastern U.S. nesting aggregation is of great importance on a global scale and is second in size only to the nesting aggregation on islands in the Arabian Sea off Oman (Ross 1979, Ehrhart 1989, NOAA Fisheries and USFWS 1991b). The global importance of the southeast U.S. nesting aggregation is especially significant because the status of the Oman colony has not been evaluated recently, but it is located in an area of the world where it is highly vulnerable to disruptive events such as political upheavals, wars, catastrophic oil spills, and lack of strong protections (Meylan et al. 1995).

Ongoing threats to the western Atlantic populations include incidental takes from dredging, commercial trawling, longline fisheries, and gillnet fisheries; loss or degradation of nesting habitat from coastal development and beach armoring; disorientation of hatchlings by beachfront lighting; nest predation by native and non-native predators; degradation of foraging habitat; marine pollution and debris; watercraft strikes; and disease.

Green Sea Turtle

The vast majority of green turtle nesting within the southeast United States occurs in Florida. In Florida from 1989-1999, green turtle abundance from nest counts ranges from 109-1,389 nesting females per year (Meylan et al. 1995 and Florida Marine Research Institute Statewide Nesting 2001 Database, unpublished data; estimates assume 4 nests per female per year, Johnson and Ehrhart 1994). High biennial variation and a predominant 2-year re-migration interval (Witherington and Ehrhart 1989, Johnson and Ehrhart 1994) warrant combining even and odd years into 2-year cohorts. This gives an estimate of total nesting females that ranges from 705-1,509 during the period 1990-1999. It is important to note that because methodological limitations make the clutch frequency number (4 nests/female/year) an underestimate (by as great as 50%), a more conservative estimate is 470-1,509 nesting females in Florida between 1990 and 1999. In Florida during the period 1989-1999, numbers of green turtle nests by year show no trend. However, odd-even year cohorts of nests do show a significant increase during the period 1990-1999 (Florida Marine Research Institute, 2001 Index Nesting Beach Survey Database).

It is unclear how greatly green turtle nesting in the whole of Florida has been reduced from historical levels (Dodd 1981), although one account indicates that nesting in Florida's Dry Tortugas may now be only a small fraction of what it once was (Audubon 1926). Total nest counts and trends at index beach sites during the past decade suggest that green turtles that nest within the southeast United States are recovering and have only recently reached a level of approximately 1,000 nesting females. There are no reliable estimates of the number of green turtles inhabiting foraging areas within the southeast United States, and it is likely that green turtles foraging in the region come from multiple genetic stocks. These trends are also uncertain because of a lack of data. However, there is one sampling area in the region with a large time series of constant turtle-capture effort that may represent trends for a limited area within the region. This sampling area is at an intake canal for a power plant on the Atlantic coast of Florida where 2,578 green turtles have been captured during the period 1977-1999 (FPL 2000). At the power plant, the annual number of immature green turtle captures (minimum straight-line carapace length < 85 cm) has increased significantly during the 23-year period.

Status of immature green turtles foraging in the southeast United States might also be assessed from trends at nesting beaches where many of the turtles originated, principally, Florida, Yucatán, and Tortuguero. Trends at Florida beaches are presented above. Trends in nesting at Yucatán beaches cannot be assessed because of irregularity in beach survey methods over time. Trends at Tortuguero (ca. 20,000-50,000 nests/year) show a significant increase in nesting during the period 1971-1996 (Bjorndal et al. 1999).

The principal cause of past declines and extirpations of green turtle assemblages has been the over-exploitation of green turtles for food and other products. Although intentional take of green turtles and their eggs is not extensive within the southeast United States, green turtles that nest and forage in the region may spend large portions of their life history outside the region and outside United States' jurisdiction, where exploitation is still a threat. Adult green turtles and immatures are exploited heavily on foraging grounds off Nicaragua and to a lesser extent off Colombia, Mexico, Panama, Venezuela, and the Tortuguero nesting beach (Carr et al. 1978, Nietschmann 1982, Bass et al. 1998, Lagueux 1998).

There are significant and ongoing threats to green turtles from human-related causes. Threats to nesting beaches in the region include beach armoring, erosion control, artificial lighting, and disturbance, which can be expected to increase with time. Pollution is known to have both direct (ingestion of foreign materials such as tar balls and plastics) and indirect (degradation of foraging grounds) impacts on green sea turtles. Foraging habitat loss also occurs as a result of direct destruction by dredging, siltation, boat damage, and other human activities. Green turtles are often captured and occasionally killed by interactions with fishing gear. Collisions with power boats and encounters with suction dredges have killed green turtles along the U.S. coast and may be common elsewhere where boating and dredging activities are frequent (Florida Marine Research Institute, Sea Turtle Stranding and Salvage Network Database). Threats from increasing incidences of disease, which may or may not have some relation to human influences, are also a concern. The occurrence of green turtle fibropapillomatosis disease was originally reported in the 1930s, when it was thought to be rare (Smith and Coates 1938). Presently, this disease is cosmopolitan and has been found to affect large numbers of animals in some areas, including Hawaii and Florida (Herbst 1994, Jacobson 1990, Jacobson et al. 1991).

Kemp's Ridley Sea Turtle

L. kempii has a very restricted distribution relative to the other sea turtle species. Data suggests that adult Kemp's ridley turtles are restricted somewhat to the Gulf of Mexico in shallow near shore waters, and benthic immature turtles of 20-60 cm straight line carapace length are found in nearshore coastal waters including estuaries of the Gulf of Mexico and the Atlantic, although adult-sized individuals sometimes are found on the Eastern Seaboard of the United States. The post-pelagic stages are commonly found dwelling over crab-rich sandy or muddy bottoms. Juveniles frequent bays, coastal lagoons, and river mouths.

Of the seven extant species of sea turtles in the world, the Kemp's ridley has declined to the lowest population level. Most of the population of adult females nest on the Rancho Nuevo beaches (Pritchard 1969). When nesting aggregations at Rancho Nuevo were discovered in 1947, adult female populations were estimated to be in excess of 40,000 individuals (Hildebrand 1963). By the early 1970s, the world population estimate of mature female Kemp's ridleys had been reduced to 2,500-5,000 individuals. The population declined further through the mid-1980s. Recent observations of increased nesting suggest that the decline in the ridley population has stopped and the population is now increasing.

The TEWG (1998) identified three population trends in benthic immature ridleys. Benthic immatures are not yet reproductively mature but have recruited to feed in the nearshore benthic environment, where they are exposed to nearshore mortality sources that often result in strandings. Increased production of hatchlings from the nesting beach beginning in 1966 resulted in an increase in benthic ridleys that leveled off in the late 1970s. A second period of increase followed by leveling occurred between 1978 and 1989 as hatchling production was further enhanced by the cooperative program between the U.S. Fish and Wildlife Service and Mexico's Instituto Nacional de Pesca to increase the nest protection and relocation program in 1978. A third period of steady increase, which has not leveled off to date, has occurred since 1990 and appears to be due to the greatly increased hatchling production and an apparent increase in survival rates of immature turtles beginning in 1990, due in part to the introduction of turtle excluder devices (TEDs) in the U.S. and Mexican shrimping fleets. Adult ridley numbers have now grown, as shown in nesting increases at the main nesting sites in Mexico. Nesting at Tamaulipas and Veracruz increased from a low of 702 nests in 1985, to 1,930 nests in 1995, to 6,277 nests in 2000 (USFWS 2000). The population model used by the TEWG (1998) projected that Kemp's ridleys could reach the intermediate recovery goal identified in the Recovery Plan, of 10,000 nesters by the year 2020 if the assumptions of age to sexual maturity and age specific survivorship rates used in their model are correct.

The largest contributor to the decline of the ridley in the past was commercial and local exploitation, especially poaching of nests at the Rancho Nuevo site, as well as the Gulf of Mexico trawl fisheries. The advent of TED regulations for trawlers and protections for the nesting beaches have allowed the species to begin to rebound. Many threats to the future of the species remain, including interactions with fishery gear, marine pollution, foraging habitat destruction, illegal poaching of nests and potential threats to the nesting beaches from such sources as global climate change, development, and tourism pressures.

Leatherback Sea Turtle

Leatherbacks are widely distributed throughout the oceans of the world, and are found in waters of the Atlantic, Pacific, Caribbean, and the Gulf of Mexico (Ernst and Barbour 1972). The leatherback is the largest living turtle and it ranges farther than any other sea turtle species, exhibiting broad thermal tolerances (NOAA Fisheries and USFWS 1995). Genetic analyses of leatherbacks to date indicate that within the Atlantic basin significant genetic differences occur among St. Croix (U.S.V.I.) and mainland Caribbean populations (Florida, Costa Rica, Suriname/French Guiana), and between Trinidad and the mainland Caribbean populations (Dutton et al. 1999), leading to the conclusion that there are at least three separate subpopulations of leatherbacks in the Atlantic.

Nest counts are the only reliable population information available for leatherback turtles. Recent declines have been seen in the number of leatherbacks nesting worldwide (NOAA Fisheries and USFWS 1995). A population estimate of 34,500 females (26,200-42,900) was made by Spotila

et al. (1996), who stated that the species as a whole was declining and local populations were in danger of extinction. Historically, decline was due primarily to intense exploitation of the eggs (Ross 1979), but adult mortality has increased significantly from interactions with fishery gear (Spotila et al. 1996). The Pacific population is in a critical state of decline, now estimated to number less than 3,000 total adult and subadult animals (Spotila et al. 2000). The status of the Atlantic population is less clear. In 1996, it was reported to be stable, at best (Spotila et al. 1996), but numbers in the western Atlantic at that time were reported to be on the order of 18,800 nesting females. According to Spotila (pers. comm.), the western Atlantic population currently numbers about 15,000 nesting females, whereas current estimates for the Caribbean (4,000) and the eastern Atlantic, off Africa, (numbering ca. 4,700) have remained consistent with numbers reported by Spotila et al. in 1996.¹

The nesting aggregation in French Guiana has been declining at about 15% per year since 1987. From 1979-1986, the number of nests was increasing at about 15% annually. The number of nests in Florida and the U.S. Caribbean has been increasing at about 10.3% and 7.5%, respectively, per year since the early 1980s but the magnitude of nesting is much smaller than that along the French Guiana coast (see NOAA Fisheries SEFSC 2001). In summary, the conflicting information regarding the status of Atlantic leatherbacks makes it difficult to conclude whether or not the population is currently in decline. Numbers at some nesting sites are up, while at others they are down.

Zug (1996) pointed out that the combination of the loss of long-lived adults in fishery-related mortality (especially entanglement in gear and drowning in trawls), and the lack of recruitment stemming from elimination of annual influxes of hatchlings because of intense egg harvesting, has caused the sharp decline in leatherback populations. Other important ongoing threats to the population include pollution, loss of nesting habitat, and boat strikes.

Hawksbill Sea Turtle

The hawksbill is a medium-sized sea turtle with adults in the Caribbean ranging in size from approximately 62.5 to 94.0 cm straight carapace length. The species occurs in all ocean basins although it is relatively rare in the Eastern Atlantic and Eastern Pacific, and absent from the Mediterranean Sea. Hawksbills are the most tropical of the marine turtles, ranging from approximately 30°N to 30° S. They are closely associated with coral reefs and other hard-bottom habitats, but they are also found in other habitats including inlets, bays, and coastal lagoons. The diet is highly specialized and consists primarily of sponges (Meylan 1988), although other food items, notably corallimorphs and zooanthids, have been documented to be important in some areas of the Caribbean (van Dam and Díez 1997, Mayor et al. 1998, Leon and Díez 2000).

In the Western Atlantic, the largest hawksbill nesting population occurs in the Yucatán Peninsula of Mexico, where several thousand nests are recorded annually in the states of Campeche, Yucatán, and Quintana Roo (Garduño-Andrade et al. 1999). Important but significantly smaller nesting aggregations are documented elsewhere in the region in Puerto Rico, the U.S.V.I.,

Antigua, Barbados, Costa Rica, Cuba, and Jamaica (Meylan 1999a). Estimates of the annual number of nests for each of these areas are of the order of hundreds to a few thousand. Nesting within the southeastern U.S. and U.S. Caribbean is restricted to Puerto Rico (>650 nests/yr), the U.S.V.I. (~400 nests/yr), and, rarely, Florida (0-4 nests/yr)(Eckert 1995, Meylan 1999a, Florida Statewide Nesting Beach Survey database). At the two principal nesting beaches in the U.S. Caribbean where long-term monitoring has been carried out, populations appear to be increasing (Mona Island, Puerto Rico) or stable (Buck Island Reef National Monument, St. Croix, U.S.V.I.) (Meylan 1999a).

D. Analysis of the species/critical habitat likely to be affected

Of the above listed species occurring in the action area, NOAA Fisheries believes that Kemp's ridley, loggerhead, green, hawksbill, and leatherback sea turtles are likely to be adversely affected by the proposed action, but no critical habitat for any species will be impacted. These five species are known to occur in the action area and the likelihood of them being impacted by the activities in the action area is not discountable.

III. Environmental Baseline

This section contains an analysis of the effects of past and ongoing human and natural factors leading to the current status of the species, its habitat, and ecosystem, within the action area. The environmental baseline is a snapshot of a species' health at a specified point in time and includes state, tribal, local, and private actions already affecting the species, or that will occur contemporaneously with the consultation in progress. Unrelated Federal actions affecting the same species or critical habitat that have completed formal or informal consultation are also part of the environmental baseline, as are Federal and other actions within the action area that may benefit listed species or critical habitat.

The environmental baseline for this Opinion includes the effects of several activities that affect the survival and recovery of threatened and endangered species in the action area. The activities that shape the environmental baseline in the action area of this consultation are primarily fisheries and recovery activities associated with reducing fisheries impacts. Other environmental impacts include effects of discharges, dredging, military activities, and industrial cooling water intake.

A. Status of the species within the action area

The five species of sea turtles that occur in the action area are all highly migratory. NOAA Fisheries believes that no individual members of any of the species are likely to be year-round residents of the action area. Individual animals will make migrations into nearshore waters as well as other areas of the North Atlantic Ocean, Gulf of Mexico, and the Caribbean Sea. Therefore, the range-wide status of the five species of sea turtles, given in Section II above, most accurately reflects the species' status within the action area.

B. Factors affecting species environment within the action area.

As explained above, sea turtles found in the action area are not year-round residents of the area, and may travel widely throughout the Atlantic, Gulf of Mexico, and Caribbean Sea. Therefore, individuals found in the action area can potentially be affected by activities anywhere else within this wide range.

Federal Actions

In recent years, NOAA Fisheries has undertaken several ESA section 7 consultations to address the effects of federally-permitted fisheries and other Federal actions on threatened and endangered species. Each of those consultations sought to develop ways of reducing the probability of adverse effects of the action on sea turtles. Similarly, recovery actions NOAA Fisheries has undertaken under the ESA are addressing the problem of take of sea turtles in the fishing and shipping industries. The following summary of anticipated sources of incidental take of turtles includes only those Federal actions which have undergone formal section 7 consultation.

Potential adverse effects from Federal vessel operations in the action area and throughout the range of sea turtles include operations of the Navy (USN) and Coast Guard (USCG), the Environmental Protection Agency, the National Oceanic and Atmospheric Administration (NOAA), and the Army Corps of Engineers (COE). NOAA Fisheries has conducted formal consultations with the USCG, and the USN on their vessel operations. Through the section 7 process, where applicable, NOAA Fisheries has and will continue to establish conservation measures for all these agency vessel operations to avoid or minimize adverse effects to listed species. At the present time, however, they represent potential for some level of interaction.

In addition to vessel operations, other military activities including training exercises and ordnance detonation also adversely affect sea turtles. Consultations on individual activities have been completed, but no formal consultation on overall USCG or USN activities in any region has been completed at this time.

The construction and maintenance of Federal navigation channels has also been identified as a source of turtle mortality. Hopper dredges move relatively rapidly (compared to sea turtle swimming speeds) and can entrain and kill sea turtles, presumably as the drag arm of the moving dredge overtakes the slower moving turtle. Regional biological opinions (RBOs) with corresponding ITSs have been issued to the COE for the southeast Atlantic waters and the Gulf of Mexico. Consultation is currently underway, on a new RBO for the COE's Gulf of Mexico hopper dredging operations.

The COE and Minerals Management Service (MMS) (the latter is non-military) oil and gas exploration, well development, production, and abandonment/rig removal activities also

adversely affect sea turtles. Both of these agencies have consulted with NOAA Fisheries on these types of activities.

Adverse effects on threatened and endangered species from several types of fishing gear occur in the action area. Efforts to reduce the adverse effects of commercial fisheries are addressed through the ESA section 7 process. Gillnet, longline, trawl gear, and pot fisheries have all been documented as interacting with sea turtles. For all fisheries for which there is a Federal fishery management plan (FMP) or for which any Federal action is taken to manage that fishery, impacts have been evaluated under section 7. Several formal consultations have been conducted on the following fisheries that NOAA Fisheries has determined are likely to adversely affect threatened and endangered species: American lobster, monkfish, dogfish, southeastern shrimp trawl fishery, northeast multispecies, Atlantic pelagic swordfish/tuna/shark, and summer flounder/scup/black sea bass fisheries.

On June 14, 2001, NOAA Fisheries issued a jeopardy opinion for the Highly Migratory Species (HMS) fisheries off the eastern United States. The HMS Opinion found that the continued prosecution of the pelagic longline fishery in the manner described in the HMS FMP was likely to jeopardize the continued existence of loggerhead and leatherback sea turtles. This determination was made by analyzing the effects of the fishery on sea turtles in conjunction with the environmental baseline and cumulative effects. The environmental baseline section of the HMS Opinion is incorporated herein by reference and can be found at the following NOAA Fisheries website:
http://www.nmfs.noaa.gov/prot_res/readingrm/ESAsec7/HMS060801final.pdf

The environmental baseline for the June 14, 2001, HMS Opinion also considered the impacts from the North Carolina offshore spring monkfish gillnet fishery and the inshore fall southern flounder gillnet fishery, both of which were responsible for large numbers of sea turtle mortalities in 1999 and 2000, especially loggerhead sea turtles. However, during the 2001 season NOAA Fisheries implemented an observer program that observed 100% of the effort in the monkfish fishery, and then in 2002 a rule was enacted creating a seasonal monkfish gillnet closure along the Atlantic coast based upon sea surface temperature data and turtle migration patterns. In 2001, NOAA Fisheries also issued an ESA section 10 permit with mitigative measures for the southern flounder fishery. Subsequently, the sea turtle mortalities in these fisheries were drastically reduced. The reduction of turtle mortalities in these fisheries reduces the negative effects these fisheries have on the environmental baseline.

NOAA Fisheries has implemented a reasonable and prudent alternative (RPA) in the HMS fishery which would allow the continuation of the pelagic longline fishery without jeopardizing the continued existence of loggerhead and leatherback sea turtles. The provisions of this RPA include the closure of the Grand Banks region off the northeast United States and gear restrictions that are expected to reduce the by-catch of loggerheads by as much as 76% and leatherbacks by as much as 65%. Further, NOAA Fisheries is implementing a major research project to develop measures aimed at further reducing longline by-catch. The implementation of this RPA reduces the negative effects that the HMS fishery has on the environmental baseline.

The conclusions of the June 14, 2001, HMS Opinion and the subsequent implementation of the RPA are hereby incorporated into the environmental baseline section of this Opinion.

Another action with Federal oversight which has impacts on sea turtles is the operation of electrical generating plants. Sea turtles entering coastal or inshore areas have been affected by entrainment in the cooling-water systems of electrical generating plants. Biological opinions have already been written for a number of electrical generating plants, and others are currently undergoing section 7 consultation.

State or Private Actions

Commercial vessel traffic and recreational pursuits can have an adverse effect on sea turtles through propeller and boat strike damage. Private vessels participate in high speed marine events concentrated in the southeastern United States and are a particular threat to sea turtles, and occasionally to marine mammals as well. The magnitude of these marine events is not currently known. NOAA Fisheries and the USCG are in early consultation on these events, but a thorough analysis has not been completed.

Various fishing methods used in state fisheries, including trawling, pot fisheries, fly nets, and gillnets are known to cause interactions with sea turtles. Georgia and South Carolina prohibit gillnets for all but the shad fishery. Florida has banned all but very small nets in state waters, as has Texas. Louisiana, Mississippi, and Alabama have also placed restrictions on gillnet fisheries within state waters such that very little commercial gillnetting takes place in southeast waters, with the exception of North Carolina. Most pot fisheries in the Southeast are prosecuted in areas frequented by sea turtles.

Strandings in the North Carolina area represent, at best, 7%-13% of the actual nearshore mortality (Epperly et al. 1996). Studies by Bass et al. (1998), Norrgard (1995), and Rankin-Baransky (1997) indicate that the percentage of northern loggerheads in this area is highly over-represented in the strandings when compared to the approximately 9% representation from this subpopulation in the overall U.S. sea turtle nesting populations. Specifically, the genetic composition of sea turtles in this area is 25%-54% from the northern subpopulation, 46%-64% from the South Florida subpopulation, and 3%-16% from the Yucatán subpopulation. The cumulative removal of these turtles on an annual basis would severely impact the recovery of this species.

Other Potential Sources of Impacts in the Environmental Baseline

A number of activities that may indirectly affect listed species include discharges from wastewater systems, dredging, ocean dumping and disposal, and aquaculture. The impacts from these activities are difficult to measure. Where possible, however, conservation actions are being implemented to monitor or study impacts from these elusive sources.

NOAA Fisheries and the USN have been working cooperatively to establish a policy for monitoring and managing acoustic impacts from anthropogenic sound sources in the marine environment. Acoustic impacts can include temporary or permanent injury, habitat exclusion, habituation, and disruption of other normal behavior patterns.

Conservation and Recovery Actions Shaping the Environmental Baseline

NOAA Fisheries implemented a series of regulations aimed at reducing potential for incidental mortality of sea turtles in commercial fisheries. In particular, NOAA Fisheries has required the use of TEDs in southeast U.S. shrimp trawls since 1989 and in summer flounder trawls in the mid-Atlantic area (south of Cape Charles, Virginia) since 1992. It has been estimated that TEDs exclude 97% of the turtles caught in such trawls. These regulations have been refined over the years to ensure that TED effectiveness is maximized through proper placement and installation, configuration (e.g., width of bar spacing), floatation, and more widespread use. Recent analyses by Epperly and Teas (1999) indicate that the minimum requirements for the escape opening dimensions are too small, and that as many as 47% of the loggerheads stranding annually along the Atlantic seaboard and Gulf of Mexico were too large to fit through existing openings. On October 2, 2001, NOAA Fisheries published a proposed rule to require larger escape openings in TEDs and is planning to publish a final rule in 2002.

In 1993 (with a final rule implemented in 1995), NOAA Fisheries established a Leatherback Conservation Zone to restrict shrimp trawl activities from the coast of Cape Canaveral, Florida, to the North Carolina/Virginia border. This provides for short-term closures when high concentrations of normally pelagic-distributed leatherbacks are recorded in more coastal waters where the shrimp fleet operates. This measure is necessary because, due to their size, adult leatherbacks are larger than the escape openings of most NOAA Fisheries-approved TEDs.

NOAA Fisheries is also working to develop a TED which can be effectively used in a type of trawl known as a fly net, which is sometimes used in the mid-Atlantic and northeast fisheries to target sciaenids and bluefish. Limited observer data indicate that takes can be quite high in this fishery. A prototype design has been developed, but testing under commercial conditions is still necessary.

In addition, NOAA Fisheries has been active in public outreach efforts to educate fishermen regarding sea turtle handling and resuscitation techniques. As well as making this information widely available to all fishermen, NOAA Fisheries recently conducted a number of workshops with longline fishermen to discuss bycatch issues including protected species, and to educate them regarding handling and release guidelines. NOAA Fisheries intends to continue these outreach efforts and hopes to reach all fishermen participating in the pelagic longline fishery over the next one to two years. There is also an extensive network of Sea Turtle Stranding and Salvage Network participants along the Atlantic and Gulf of Mexico which not only collects data on dead sea turtles, but also rescues and rehabilitates any live stranded turtles.

IV. Effects of the Action

Since Units 1, 2, and 3 began commercial operation, marine turtles have occasionally been found in the intake canal. CREC records indicate that from 1994 to 1997, eight sea turtles were stranded on the Unit 3 intake bar racks. CREC records for these years were opportunistic, and do not indicate species, time of year, size or disposition of the stranded turtles (dead or alive). Sea turtle monitoring activities at CREC have increased substantially since 1997, with the monitoring program implemented in March 1998 and the implementation of the Sea Turtle Rescue Guidelines dated September 1998. The increased monitoring should provide a more realistic estimate of the number of sea turtles stranded or killed each year at the plants.

The records indicate that this activity has not taken many sea turtles for years up to 1998. For the four years from 1994 to 1997, the activities at CREC have taken an average of two sea turtles per year. Records for 1998 show a dramatic increase in the numbers of sea turtle strandings at CREC, especially for the months of February to May. In 1998, a total of 40 takes were stranded at the power plants, 5 being lethal. Of these, 37 of the turtles released alive were Kemp's ridley and all 5 lethal takes were also Kemp's ridley. All sea turtles stranded at CREC were sub-adults with carapace lengths ranging from 21 cm to 55 cm. There are no proven environmental factors that have caused this increase and population numbers are not monitored for this area so the increase could be from an increase in population or an increase in sub-adult turtles moving into this area from some other area (pers. comm. Allen Foley, FWC).

The number of marine sea turtles taken in 1999 was significantly lower than 1998. A total of 9 live sea turtles were recovered from the bar racks in 1999. Of these, 7 were Kemp's ridleys, 1 was a loggerhead, and 1 was a green turtle. In 2000, a total of 19 turtles were taken from the bar racks: 13 were alive, 5 were considered non-causal mortalities (killed by something other than plant activities, such as a boat strike, and verified by FWC), and 1 was considered killed as a result of plant activities. Of these, 11 were Kemp's ridleys, 6 were green turtles, 1 was a loggerhead, and 1 was a hawksbill.

More turtles were taken in 2001 than in 1998. There were 66 sea turtles taken incidentally in 2001, 62 were released alive, 3 were considered non causal mortalities, and 1 was considered killed as a result of plant activities. The vast majority of these turtles were Kemp's ridleys, followed by green and loggerhead turtles. These numbers exceeded the biennial ITS levels set in the June 1999 Opinion, which established an incidental take level of 50 live takes, 5 turtles killed as a result of plant activities and 8 dead turtles not causally related to plant operations. As of May 21, 2002, there have been 11 turtles incidentally taken at CREC, 8 of which were alive and 3 dead turtles not causally related to plant operations.

Based on this information and recorded take levels for 1998 and 2001, NOAA Fisheries believes that the level of live take of sea turtles in CREC's intake canal may reach 75 sea turtles rescued alive from the bar racks annually and 3 lethal takes annually that are causally related to plant operations. The majority of these turtles are expected to be Kemp's ridleys, followed by greens

and loggerheads. Hawksbills and leatherbacks, although occasionally found in the area, are expected to make up a very small portion of this take (less than 1%). NOAA Fisheries does not expect leatherbacks or hawksbills to be part of the lethal take because of their rarity in the action area.

V. Cumulative Effects

Cumulative effects are the effects of future state, local, or private activities that are reasonably certain to occur within the action area considered in this biological opinion. Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA. Within the action area, major future changes are not anticipated in ongoing human activities described in the environmental baseline. The present, major human uses of the action area such as commercial fishing, recreational boating and fishing, and the transport of petroleum and other chemical products, are expected to continue at the present levels of intensity in the near future as are their associated risks of injury or mortality to sea turtles posed by incidental capture by fishermen, accidental oil spills, vessel collisions, marine debris, chemical discharges, and man-made noises. As discussed in Section III, however, listed species of turtles migrate throughout the Gulf of Mexico and Atlantic and may be affected during their life cycles by non-Federal activities outside the action area.

Beachfront development, lighting, and beach erosion control are all ongoing activities along the southeastern coast of the United States. These activities potentially reduce or degrade sea turtle nesting habitats or interfere with hatchling movement to sea. Nocturnal human activities along nesting beaches may also discourage sea turtles from nesting sites. The extent to which these activities reduce sea turtle nesting and hatchling production is unknown. However, more and more coastal counties have or are adopting more stringent protective measures to protect hatchling sea turtles from the disorienting effects of beach lighting. Some of these measures were drafted in response to law suits brought against the counties by concerned citizens who charged the counties with failing to uphold the ESA by allowing unregulated beach lighting which results in takes of hatchlings.

State-regulated commercial and recreational boating and fishing activities in the Gulf of Mexico, off Citrus County waters currently result in the incidental take of threatened and endangered species. It is expected that states will continue to license/permit large vessel and thrill-craft operations which do not fall under the purview of a Federal agency and will issue regulations that will affect fishery activities. Any increase in recreational vessel activity in inshore and offshore waters of the Atlantic Ocean and the Gulf of Mexico will likely increase the risk of turtles taken by injury or mortality in vessel collisions. Recreational hook-and-line fisheries have been known to lethally take sea turtles, including Kemp's ridleys. Future cooperation between NOAA Fisheries and the states on these issues should help decrease take of sea turtles caused by recreational activities. NOAA Fisheries will continue to work with states to develop ESA section 6 agreements and section 10 permits to enhance programs to quantify and mitigate these takes.

VI. Conclusion

The annual live take, tagging, and release of 75 turtles (Kemp's ridleys, greens, hawksbills, leatherbacks, and loggerheads) will not have an impact on turtles populations. The annual lethal take of 3 Kemp's ridley, loggerhead, or green sea turtles, or some combination of all three, represents a very small percentage of the total sea turtle take in the Southeast United States from such things as commercial fishing. As explained in this Opinion (in the environmental baseline and species description), nesting for these species has been increasing or remaining stable in the Southeast United States (except for the northern nesting population of loggerheads which has been stable and may be decreasing) in spite of the current amount of take. Therefore, after reviewing the current status of endangered green, leatherback, hawksbill, and Kemp's ridley sea turtles, and threatened loggerhead sea turtles; the environmental baseline; the effects of the proposed action; and the cumulative effects, it is NOAA Fisheries biological opinion that the implementation of the proposed action, as described in the Proposed Action section of this Opinion, is not likely to jeopardize the continued existence of endangered green, leatherback, hawksbill, and Kemp's ridley sea turtles, or threatened loggerhead sea turtles. No critical habitat has been designated for these species in the action area; therefore, none will be affected.

VII. Incidental Take Statement

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary and must be undertaken by the NRC so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. The NRC has a continuing duty to regulate the activity covered by this incidental take statement. If the NRC fails to assume and implement the terms and conditions, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the NRC must report the progress of the action and its impact on the species to NOAA Fisheries as specified in the incidental take statement.

Amount or Extent of Anticipated Take

Based on stranding records, incidental captures aboard commercial shrimp vessels, and historical data, five species of sea turtles are known to occur in the action area. Current available information on the relationship between sea turtles and CREC's cooling water intake system indicates that injury and/or death of sea turtles is likely to occur from entrainment on the bar racks of the water intake system. Therefore, pursuant to section 7(b)(4) of the ESA, NOAA

Fisheries anticipates an annual incidental take of up to **seventy-five** live sea turtles and **three** sea turtles killed as a result of plant operations, in any combination of loggerheads, greens, Kemp's ridleys, hawksbills, or leatherbacks. This level of take is anticipated for the operation of CREC's cooling water intake system. If the actual incidental take meets or exceeds this level, the NRC must immediately request reinitiation of formal consultation. NOAA Fisheries' Southeast Region will cooperate with the NRC in the review of the incident. NOAA Fisheries also expects that the CREC may capture and collect an additional unquantifiable number of previously dead sea turtles (turtles not killed as a result of plant operations) such as turtles with obvious signs of injury, such as prop scars, or disease.

Effect of the Take

NOAA Fisheries believes that the aforementioned level of anticipated annual take, over the next five years, is not likely to appreciably reduce the survival and recovery of Kemp's ridley, green, loggerhead, hawksbill, or leatherback sea turtles in the wild by reducing their reproduction, numbers, or distribution, even if all incidental takes are from the same species. In particular, NOAA Fisheries determined that it does not expect activities associated with the proposed action, when added to ongoing activities affecting these species in the action area and cumulative effects, to affect sea turtles in a way that reduces the number of animals born in a particular year (i.e., a specific age-class), the reproductive success of adult sea turtles, or the number of young sea turtles that annually recruit into the adult breeding population.

Reasonable and Prudent Measures

NOAA Fisheries believes the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of Kemp's ridley, green, loggerhead, leatherback, and hawksbill sea turtles:

1. NRC will monitor sea turtle activities around the bar racks and rescue sea turtles stranded on the bar racks.
2. NRC will keep records of sea turtle strandings at the plants.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the NRC must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting and monitoring requirements. These terms and conditions are nondiscretionary.

1. Continue implementation of the procedures outlined in the Florida Power Corporation's Sea Turtle Rescue and Handling Guidelines (AI-571) which are incorporated by reference. All updates of the rescue plan will be reviewed by the FWC and NOAA Fisheries.

2. If any listed species are apparently injured or killed in the intake canal or the bar racks, a report summarizing the incident must be provided to the NOAA Fisheries' Southeast Regional Office (SERO) Assistant Regional Administrator, Protected Resources Division, within 30 days of the incident.
3. All sea turtle takings at the plant will be recorded by species, size, date and time collected, location, condition, and disposition. Details on the information to be collected and recorded shall be specified in the Sea Turtle Rescue and Handling Guidelines. Data collected will be tabulated and submitted to NOAA Fisheries' SERO Assistant Regional Administrator, Protected Resources Division and the FWC by March 1 of each year.
4. If non-lethal take reaches 70 individuals, causally related lethal take reaches 2 individuals, or if take of non-causally related dead turtles reaches 8 individuals (although there is no specified take limit on non-causally related dead turtles, NOAA Fisheries is requiring this information in case there are other issues it may need to look into) in any one year, NRC will notify the SERO Assistant Regional Administrator, Protected Resources Division within 5 days.

NOAA Fisheries anticipates that no more than 78 sea turtles will be incidentally taken annually as a result of the proposed action and that three of these takes will be lethal. The reasonable and prudent measures and their implementing terms and conditions are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of this action, this level of incidental take is met or exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The NRC must immediately provide an explanation of the causes of the taking and review with NOAA Fisheries the need for possible modification of the reasonable and prudent measures.

VIII. Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorizations to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

NRC should continue the evaluation and experimentation on methods to be employed that could be used to keep sea turtles away from the bar racks.

In order for NOAA Fisheries to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, NOAA Fisheries requests notification of the implementation of any conservation recommendations.

IX. Reinitiation of Consultation

This concludes formal consultation on the actions outlined in the NRC's BA dated October 11, 2001. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if (1) the amount or extent of taking specified in the incidental take statement is met or exceeded, (2) new information reveals effects of the action that may affect listed species or critical habitat (when designated) in a manner or to an extent not previously considered, (3) the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the biological opinion, or (4) a new species is listed or critical habitat designated that may be affected by the identified action. In instances where the amount or extent of incidental take is exceeded, the NRC must immediately request reinitiation of formal consultation.

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APPENDIX 10.6.8

**INDIVIDUAL WATER USE PERMIT
No. 20004695.004**



An Equal
Opportunity
Employer

Southwest Florida Water Management District

Bartow Service Office
170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)
SUNCOM 572-6200

Lecanto Service Office
Suite 226
3600 West Sovereign Path
Lecanto, Florida 34461-8070
(352) 527-8131

2379 Broad Street, Brooksville, Florida 34604-6899
(352) 796-7211 or 1-800-423-1476 (FL only)
SUNCOM 628-4150 TDD only 1-800-231-6103 (FL only)
On the Internet at: WaterMatters.org

Sarasota Service Office
6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or
1-800-320-3503 (FL only)
SUNCOM 531-6900

Tampa Service Office
7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)
SUNCOM 578-2070

Judith C. Whitehead
Chair, Hernando

Neil Combee
Vice Chair, Polk

Todd Pressman
Secretary, Pinellas

Jennifer E. Closshey
Treasurer, Hillsborough

Thomas G. Dabney
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Patricia M. Glass
Manatee

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Hillsborough

Ronald E. Oakley
Pasco

Sallie Parks
Pinellas

Maritza Rovira-Forino
Hillsborough

Patsy C. Symons
DeSoto

David L. Moore
Executive Director

William S. Bilensky
General Counsel

November 26, 2007

Bernie Cumbie
Florida Power Corporation, Progress Energy FL, Inc., and
Crystal River South Unit 1, 2 and 3
15760 West Power Line Road
Crystal River, FL 34428

Subject: Permit Transmittal Letter
Individual Water Use Permit No. 20004695.004

Dear Mr. Cumbie:

This Water Use Permit was approved by the District Governing Board subject to all terms and conditions set forth in the approved Permit.

Please be advised that the Governing Board has formulated a water shortage plan as referenced in Condition 4 of the Standard Water Use Permit Conditions and will implement such a plan during periods of water shortage. You will be notified during a declared water shortage of any change in the conditions of your Permit or any suspension of your Permit, or of any restriction on your use of water for the duration of any declared water shortage.

The ID tags for your withdrawals shall be installed by a District representative. This representative will attempt to contact you within 30 days to discuss placement of your tags. If you have any questions or concerns regarding your tags, please contact Sandy Semegen at extension 4349, in the Brooksville Regulation Department. If you have any questions or concerns regarding your permit or any other information, please contact this office at extension 4360.

Sincerely,

Paul W. O'Neil, Jr., P.E., Department Director
Regulation Performance Management

PWO:jjm

Enclosures: Approved Permit

cc: File of Record

Patricia Garner, R.E.M., Progress Energy Florida, Inc.

RECEIVED

DEC 04 2007

Environmental Services

**SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WATER USE
INDIVIDUAL
PERMIT NO. 20004695.004**

EXPIRATION DATE: November 26, 2017

PERMIT ISSUE DATE: November 26, 2007

The Permittee is responsible for submitting an application to renew this permit no sooner than one year prior to the expiration date, and no later than the end of the last business day before the expiration date, whether or not the Permittee receives prior notification by mail. Failure to submit a renewal application prior to the expiration date and continuing to withdraw water after the expiration date is a violation of Chapter 373, Florida Statutes, and Chapter 40D-2, Florida Administrative Code, and may result in a monetary penalty and/or loss of the right to use the water. Issuance of a renewal of this permit is contingent upon District approval.

TYPE OF APPLICATION: Renewal

GRANTED TO: Florida Power Corporation, Progress Energy FL, Inc., and
Crystal River South Unit 1, 2 and 3
15760 West Power Line Road
Crystal River, FL 34428

PROJECT NAME: Crystal River South Power Plant

WATER USE CAUTION AREA: N/A

PROPERTY LOCATION: 5,125.7 owned acres in Citrus County, approximately 3 miles west of Red Level.

ABSTRACT: This is a renewal for an existing water use permit for cooling and other operational uses for power plant Units 1, 2, and 3. The Annual Average quantity is 1,000,000 gallons per day (gpd) and the Peak Month quantity is 1,500,000 gpd. The quantities are based on historical usage and projected demands through the 10-year permit term.

The permit includes Special Conditions that require monthly reporting of metered pumpage, monthly reporting of water quality from District ID 4, monthly reporting of water levels from District ID 7, capping of unused wells, submittal of a water conservation report by October 1, 2012, pumpage distribution flexibility, and potential permit modification as a result of the ongoing site certification process.

CHANGES FROM PRIOR PERMIT: There are no changes from the prior permit.

Permit Information			
	Existing 2007	Requested 2017	Staff Recommendation 2017
Annual Average (gpd)			
Ground Water	1,000,000	1,000,000	1,000,000
Surface Water	0	0	0
Peak Month (gpd)			
Ground Water	1,500,000	1,500,000	1,500,000
Surface Water	0	0	0
Population Served	N / A	N / A	N / A

Permit Information (continued)			
	Existing 2007	Requested 2017	Staff Recommendation 2017
Annual Average Permitted Quantities (gpd)	N / A	N / A	N / A
Imports (gpd)	N / A	N / A	N / A
Exports (gpd)	N / A	N / A	N / A
Treatment Loss (gpd)	N / A	N / A	N / A
Gross Use (gpd)	N / A	N / A	N / A
Gross Per Capita (gpd/person)	N / A	N / A	N / A
Adjustments:			
Significant Uses (gpd)	N / A	N / A	N / A
Environmental Mitigation (gpd)	N / A	N / A	N / A
Reclaimed Water Offsets	N / A	N / A	N / A
Adjusted Gross Per Capita (gpd/person)	N / A	N / A	N / A
Residential Use (gpd)	N / A	N / A	N / A
Residential Per Capita (gpd/person)	N / A	N / A	N / A
Unaccounted Water Use (gpd):	N / A	N / A	N / A

¹ Average daily use during the highest water use month.

FACILITY NAME
Crystal River South Power Plant

SPECIAL CONDITIONS:

All conditions referring to approval by the Regulation Department Director, Resource Regulation, shall refer to the Director, Brooksville Regulation Department, Resource Regulation.

1. All reports and data required by conditions of the permit shall be submitted to the District according to the due dates contained in the specific condition. If the report or data is received on or before the tenth day of the month following data collection, it shall be deemed as a timely submittal. The Permittee may use the District's website to submit data, plans or reports online. To set up an account, the Permittee can address the request to permitdata@watermatters.org. All mailed reports and data are to be sent to:

Permit Data Section, Regulation Performance Management Department
 Southwest Florida Water Management District
 2379 Broad Street
 Brooksville, Florida 34604-6899

Submission of plans and reports: Unless submitted online or otherwise indicated in the special condition, the original and two copies of each plan and report, such as conservation plans, environmental analyses, aquifer test results, per capita annual reports, etc. are required.

Submission of data: Unless otherwise indicated in the special condition, an original (no copies) is required for data submittals such as crop report forms, meter readings and/or pumpage, rainfall, water level evapotranspiration, or water quality data.

2. The Permittee shall meter withdrawals from surface waters and/or the ground water resources, and meter readings from each withdrawal facility shall be recorded on a monthly basis within the last week of the month. The meter readings shall be reported to the Data Management Section, Regulation Performance Management Department on or before the tenth day of the following month. District-supplied scanning forms shall be used to submit the meter readings unless another arrangement for submission of this data has been approved by the District. The following withdrawal facilities shall be metered:

Existing permitted withdrawal facilities shall continue to be metered with non-resettable, totalizing flow meters or other flow measuring devices as approved by the Regulation Department Director, District ID Nos. **1, 2, 3, 4 and 5**, Permittee ID Nos. **PW1A, PW1B, SPW3, SPW4 and SPW5**.

The meters shall adhere to the following descriptions and shall be installed or maintained as follows:

- A. The meters shall be non-resettable, totalizing flow meters that have a totalizer of sufficient magnitude to retain total gallon data for a minimum of the three highest consecutive months permitted quantities. If other measuring devices are proposed, prior to installation, approval shall be obtained in writing from the Regulation Department Director.
- B. The Permittee shall report non-use on all metered standby withdrawal facilities on the scanning form or approved alternative reporting method.
- C. If a metered withdrawal facility is not used during any given month, the meter report shall be submitted to the District indicating the same meter reading as was submitted the previous month.
- D. The flow meters or other approved devices shall have and maintain an accuracy within five percent of the actual flow as installed.
- E. Accuracy testing requirements:
 1. For newly metered withdrawal points, the flow meter installation shall be designed for inline field access for meter accuracy testing.
 2. The meter shall be tested for accuracy on-site, as installed, every five years beginning from the date of its installation for new meters or from the date of initial issuance of this permit containing the metering condition with an accuracy test requirement for existing meters.
 3. The testing frequency will be decreased if the Permittee demonstrates to the satisfaction of the District that a longer period of time for testing is warranted.
 4. The test will be accepted by the District only if performed by a person knowledgeable in the testing equipment used.
 5. If the actual flow is found to be greater than 5% different from the measured flow, within 30 days, the Permittee shall have the meter re-calibrated, repaired, or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration.
- F. The meter shall be installed according to the manufacturer's instructions for achieving accurate flow to the specifications above, or it shall be installed in a straight length of pipe where there is at least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2)

- times the outside pipe diameter. Where there is not at least a length of ten diameters upstream available, flow straightening vanes shall be used in the upstream line.
- G. Broken or malfunctioning meter:
1. If the meter or other flow measuring device malfunctions or breaks, the Permittee shall notify the District within 15 days of discovering the malfunction or breakage.
 2. The meter must be replaced with a repaired or new meter, subject to the same specifications given above, within 30 days of the discovery.
 3. If the meter is removed from the withdrawal point for any other reason, it shall be replaced with another meter having the same specifications given above, or the meter shall be reinstalled within 30 days of its removal from the withdrawal. In either event, a fully functioning meter shall not be off the withdrawal point for more than 60 consecutive days.
- H. While the meter is not functioning correctly, the Permittee shall keep track of the total amount of time the withdrawal point was used for each month and multiply those minutes times the pump capacity (in gallons per minute) for total gallons. The estimate of the number of gallons used each month during that period shall be submitted on District scanning forms and noted as estimated per instructions on the form. If the data is submitted by another approved method, the fact that it is estimated must be indicated. The reason for the necessity to estimate pumpage shall be reported with the estimate.
- I. In the event a new meter is installed to replace a broken meter, it and its installation shall meet the specifications of this condition. The permittee shall notify the District of the replacement with the first submittal of meter readings from the new meter.
3. Any wells not in use, and in which pumping equipment is not installed shall be capped or valved in a water tight manner in accordance with Subsection 62-532.500(3)(a)(4), F.A.C.
 4. The quantities authorized by this permit, include sufficient water for Crystal River Units 1, 2, and 3. Unit 3 is currently undergoing site certification through the Florida Department of Environmental Protection. If water quantities are authorized for Unit 3 through the site certification process, the permittee shall, within 30 days of the site certification, apply to modify and reduce the quantities authorized under this water use permit, to the quantities required for only Units 1 and 2.
 5. Water quality samples shall be collected and analyzed for parameters, and frequency(ies) specified below. Water quality samples from production wells shall be collected whether or not the well is being used, unless infeasible. If sampling is infeasible, the Permittee shall indicate the reason for not sampling on the water quality data form. Water quality samples shall be analyzed by a Department of Health and Rehabilitative Services (DHRS) certified laboratory under Environmental Laboratory Certification General Category "1". At a minimum, water quality samples shall be collected after pumping the well at its normal rate for a pumping time specified in the table below, or to a constant temperature, pH, and conductivity. In addition, the Permittee's sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake analysis. Any variance in sampling and/or analytical methods shall have prior approval of the Regulation Department Director, Resource Regulation. Reports of the analyses shall be submitted to the Permit Data Section, Records and Data Department, (using District forms) on or before the tenth day of the following month, and shall include the signature of the authorized representative and certification number of the certified laboratory which undertook the analyses. The parameters and frequency of sampling and analysis may be modified by the Regulation Department Director, Resource Regulation, as necessary to ensure the protection of the resource.

District ID No.	Permittee ID No.	Minimum Pumping Time (minutes)	Parameter	Sampling Frequency
4	SPW4	15	Chlorides, Sulfates, & TDS	Monthly

Water quality samples shall be collected based on the following timetable:

Monthly Same week of each month

Analyses shall be performed according to the procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the US Environmental Protection Agency (EPA).

6. The average day, peak monthly, and maximum daily, if applicable, quantities for District ID Nos. 3, 4, and 5, Permittee ID Nos. SPW3, SPW4, and SPW5, shown below in the production withdrawal table are estimates based on historic and/or projected distribution of pumpage, and are for water use inventory and impact analysis purposes. The quantities listed in the table for these individual sources are not intended to dictate the distribution of pumpage from the permitted sources. The Permittee may make adjustments in pumpage distribution as necessary up to 440,000 gallons per day (gpd) on an average basis and up to 570,000 gpd on a peak monthly basis for the individual wells, so long as adverse environmental impacts do not result and other conditions of this Permit are complied with. In all cases, the total average annual daily withdrawal and the total peak monthly withdrawal are limited to the quantities set forth above.
7. The Permittee shall monitor water levels in the monitor well as specified in the table below. Reports of the data shall be submitted to the Permit Data Section, Records and Data Department, in a form acceptable to the District. All data shall be referenced to National Geodetic Vertical Datum (NGVD). The frequency of water-level recording may be modified by the Regulation Department Director, Resource Regulation, as necessary to ensure the protection of the resource.

District ID No.	Permittee ID No.	Latitude/ Longitude	Aquifer	Recording Frequency
7	MONW	285744/823824	Floridan	Daily

Recording Frequency
Continuous Recording

Recording Time
Continuous hourly basis

The maximum and minimum of the 24-hour values (continuous recording) for each day shall be calculated, and only the maximum and minimum values for each day shall be reported to the Permit Data Section, Records and Data Department. The time and date that the water level is measured shall be reported with the data.

8. The Permittee shall continue to carry out the provisions of its water conservation plan submitted with the application for the duration of this permit. The Permittee shall submit a progress report by October 1, 2012.

WITHDRAWAL POINT QUANTITY TABLE

Water use from these withdrawal points are restricted to the quantities given below:

I.D. NO. PERMITTEE/ DISTRICT	DIAM. (IN.)	DEPTH TTL./CSD.FT. (feet bls)	USE	GALLONS PER DAY	
				AVERAGE	PEAK MONTH
PW1A / 1	5	42 / 42	I	25,000	37,500
PW1B / 2	8	42 / 42	I	25,000	37,500
SPW3 / 3	10	90 / 36	I	380,000	570,000
SPW4 / 4	10	125 / 37	I	285,000	427,500
SPW5 / 5	10	72 / UNK	I	285,000	427,500

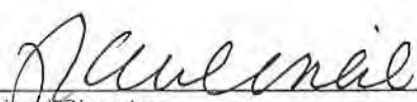
I = Industrial

WITHDRAWAL POINT LOCATION TABLE

DISTRICT I.D. NO.	LATITUDE/LONGITUDE	SECTION/TOWNSHIP/RANGE
1	285744.59/824156.39	33/17/16
2	285743.30/824156.18	33/17/16
3	285735.96/823804.53	31/17/17
4	285736.05/823808.88	36/17/16
5	285735.75/823819.13	36/17/16

STANDARD CONDITIONS:

The Permittee shall comply with the Standard Conditions attached hereto, incorporated herein by reference as Exhibit "A" and made a part hereof.


 Authorized Signature
 SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

This permit, issued under the provision of Chapter 373, Florida Statutes and Florida Administrative Code 40D-2, authorizes the Permittee to withdraw the quantities outlined above, and may require various activities to be performed by the Permittee as described in the permit, including the Special Conditions. This permit does not convey to the Permittee any property rights or privileges other than those specified herein, nor relieve the Permittee from complying with any applicable local government, state, or federal law, rule, or ordinance.

40D-2
Exhibit "A"

WATER USE PERMIT STANDARD CONDITIONS

1. If any of the statements in the application and in the supporting data are found to be untrue and inaccurate, or if the Permittee fails to comply with all of the provisions of Chapter 373, F.S., Chapter 40D, or the conditions set forth herein, the Governing Board shall revoke this permit in accordance with Rule 40D-2.341, following notice and hearing.
2. This permit is issued based on information provided by the Permittee demonstrating that the use of water is reasonable and beneficial, consistent with the public interest, and will not interfere with any existing legal use of water. If, during the term of the permit, it is determined by the District that the use is not reasonable and beneficial, in the public interest, or does impact an existing legal use of water, the Governing Board shall modify this permit or shall revoke this permit following notice and hearing.
3. The Permittee shall not deviate from any of the terms or conditions of this permit without written approval by the District.
4. In the event the District declares that a Water Shortage exists pursuant to Chapter 40D-21, the District shall alter, modify, or declare inactive all or parts of this permit as necessary to address the water shortage.
5. The District shall collect water samples from any withdrawal point listed in the permit or shall require the Permittee to submit water samples when the District determines there is a potential for adverse impacts to water quality.
6. The Permittee shall provide access to an authorized District representative to enter the property at any reasonable time to inspect the facility and make environmental or hydrologic assessments. The Permittee shall either accompany District staff onto the property or make provision for access onto the property.
7. Issuance of this permit does not exempt the Permittee from any other District permitting requirements.
8. The Permittee shall cease or reduce surface water withdrawal as directed by the District if water levels in lakes fall below applicable minimum water level established in Chapter 40D-8 or rates of flow in streams fall below the minimum levels established in Chapter 40D-8.
9. The Permittee shall cease or reduce withdrawal as directed by the District if water levels in aquifers fall below the minimum levels established by the Governing Board.
10. The Permittee shall practice water conservation to increase the efficiency of transport, application, and use, as well as to decrease waste and to minimize runoff from the property. At such time as the Governing Board adopts specific conservation requirements for the Permittee's water use classification, this permit shall be subject to those requirements upon notice and after a reasonable period for compliance.
11. The District may establish special regulations for Water Use Caution Areas. At such time as the Governing Board adopts such provisions, this permit shall be subject to them upon notice and after a reasonable period for compliance.

12. The Permittee shall mitigate any adverse impact to existing legal uses caused by withdrawals. When adverse impacts occur or are imminent, the District shall require the Permittee to mitigate the impacts. Adverse impacts include:
 - A. A reduction in water levels which impairs the ability of the well to produce water;
 - B. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses; or
 - C. Significant inducement of natural or manmade contaminants into a water supply or into a usable portion of any aquifer water body.
13. The Permittee shall mitigate any adverse impact to environmental features or offsite land uses as a result of withdrawals. When adverse impacts occur or are imminent, the District shall require the Permittee to mitigate the impacts. Adverse impacts include:
 - A. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses;
 - B. Sinkholes or subsidence caused by reduction in water levels;
 - C. Damage to crops and other vegetation causing financial harm to the owner; and
 - D. Damage to the habitat of endangered or threatened species.
14. When necessary to analyze impacts to the water resource or existing users, the District shall require the Permittee to install flow metering or other measuring devices to record withdrawal quantities and submit the data to the District.
15. A District identification tag shall be prominently displayed at each withdrawal point by permanently affixing the tag to the withdrawal facility.
16. Notwithstanding the provisions of Rule 40D-1.6105, F.A.C., persons who wish to continue the water use permitted herein and who have acquired ownership or legal control of permitted water withdrawal facilities or the land on which the facilities are located must apply to transfer the permit to themselves within 45 days of acquiring ownership or legal control of the water withdrawal facilities or the land.
17. All permits issued pursuant to these Rules are contingent upon continued ownership or legal control of all property on which pumps, wells, diversions or other water withdrawal facilities are located.