

**STATE OF FLORIDA  
DEPARTMENT  
OF  
ENVIRONMENTAL PROTECTION**



**Conditions of Certification**

**Florida Power & Light Company  
Turkey Point Plant  
Units 3 and 4 Nuclear Power Plant  
Unit 5 Combined Cycle Plant**

**PA 03-45D**

**06/19/2009**

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## **I. CERTIFICATION CONTROL**

A. Pursuant to s. 403.501-518, F.S., the Florida Electrical Power Plant Siting Act, this certification is issued to Florida Power & Light Company (FPL) as owner/operator of the Turkey Point Plant. The Department recognizes that Nuclear Units 3 & 4 and Fossil Unit 5 are under the control of different divisions of FPL. Unless otherwise specified, FPL shall be responsible for the compliance with the conditions herein. Violation of any conditions specific to Units 3, 4, or 5 shall solely affect the license of the responsible generating units. Under the control of these Conditions of Certification FPL may operate a 1,150 MW (nominal) facility (Unit 5) consisting of four 170 MW natural gas fired combustion turbines with light oil as back-up fuel, four heat recovery steam generators and one 470 MW steam turbine, and one nuclear plant consisting of two 800 MW (nominal) pressurized water reactors (Units 3 & 4), and all ancillary equipment. Unit 5 is located on approximately 90 acres of the existing 11,000 acres Turkey Point site in Miami-Dade County, Florida. Units 3 & 4 are located on approximately 30 acres of the existing site.

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

## **II. APPLICABLE RULES**

The construction and operation of the certified facility shall be in accordance with all applicable provisions of Florida Statutes and Florida Administrative Code, including, but not limited to, the following regulations: Chapters 403 and 373, Florida Statutes (F.S.); South Florida WMD Chapters 40E-1, 40E-2, 40E-3, 40E-4, 40E-8, 40E-21, 40E-40, 40E-45; and 62-4, 62-17, 62-256, 62-296, 62-297, 62-301, 62-302, 62-531, 62-532, 62-550, 62-555, 62-560, 62-600, 62-601, 62-604, 62-610, 62-620, 62-621, 62-650, 62-699, 62-660, 62-701, 62-762, 62-767, 62-769, and 62-770, and 62-780, Florida Administrative Code (F.A.C.), or their successors as they are renumbered.

## **III. DEFINITIONS**

The meaning of terms used herein shall be governed by the definitions contained in Chapters 373 and 403, Florida Statutes, 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 determined by the Department. -As used herein:

A. "Applications" shall mean the Site Certification Applications (SCAs) for the certified facilities, as supplemented.

B. "DCA" shall mean the Florida Department of Community Affairs.

C. "DEP" or "Department" shall mean the Florida Department of Environmental Protection.

D. "DERM" shall mean the Department of Environmental Resources Management of Miami-Dade County, Florida.

E. "DHR" shall mean the Florida Department of State, Division of Historical Resources.

F. "Emergency conditions" shall mean urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity, and necessitating new or replacement gas pipeline, transmission lines, or access facilities.

G. "Facility" shall mean the certified electrical power generation facilities and all associated structures, including but not limited to: nuclear steam generating units, combined cycle generating units, team turbine generators, transformers, substations, fuel and water storage tanks, air and water pollution control equipment, storm water control ponds and facilities, cooling towers, and related structures.

H. "Feasible" or "practicable" shall mean reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.

I. "FWCC" shall mean the Florida Fish and Wildlife Conservation Commission.

J. "IWW Permit" shall mean the Florida Industrial Wastewater permit issued by the Department in accordance with the federal Clean Water Act.

K. "Licensee" shall mean an applicant which has obtained a certification order for the subject electrical power plant.

L. "NPDES permit" shall mean any federal National Pollutant Discharge Elimination System permit issued in accordance with the federal Clean Water Act.

M. "NRC" shall mean Nuclear Regulatory Commission.

N. "NSPS" shall mean new source performance standards as identified in 40 CFR 60.

O. "Power plant", "facility", or "project" shall mean an electrical power generating plant as defined in Section 403.503(12), F.S. and as described in the Site Certification Application.

P. "PSD permit" shall mean the federal Prevention of Significant Deterioration air emissions permit issued in accordance with the federal Clean Air Act.

Q. "SED" shall mean the Department's Southeast District Office.

R. "SFWMD" shall mean the South Florida Water Management District.

S. "Title III permit" shall mean any federal permit issued in accordance with Title III of the federal Clean Air Act (Hazardous Air pollutants).

T. "Title IV permit" shall mean any federal permit issued in accordance with Title IV of the federal Clean Air Act (Acid Rain).



U. "Title V permit" shall mean any federal permit issued in accordance with Title V of the federal Clean Air Act (Operation).

V. "WASD" shall mean the Water and Sewer Department of Miami-Dade County, Florida.

#### **IV. GENERAL CONDITIONS**

These General Conditions shall be applicable to all areas of the certified site. Compliance with the General Conditions shall be the joint responsibility of FPL Nuclear Plant (Units 3 & 4) and FPL Fossil Fuel Plant (Unit 5). Any violation of a General Condition shall be a violation by Florida Power & Light Company.

##### **A. Facilities Operation**

The Licensee shall at all times properly operate and maintain the Turkey Point Unit 3, 4 and 5 facilities and related appurtenances, and systems of treatment and control that are installed and used to achieve compliance with the conditions of this certification, and are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the approval and when required by Department rules.

Any directly associated linear facilities connecting the collector yard to the switchyard shall be maintained in accordance with the site certification application and any appropriate state and federal regulations concerning use of herbicides. The Licensee shall notify the Southeast District of the Department and the Siting Coordination Office of the type of herbicides to be used at least 60 days prior to their first use.

##### **B. Records Maintained at the Facility**

1. These Conditions of Certification or a copy thereof shall be kept at the work site of the approved activity.

2. The Licensee shall hold at the facility, or other location designated by this approval, records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation required by this approval, copies of all reports required by this approval, and records of all data used to complete the application 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. The Licensee shall provide copies of these records to the Department upon request. If the Licensee becomes aware of relevant facts that were not submitted or were incorrect in any report to the Department, such facts or information shall be promptly submitted or corrected.

##### **C. Change in Discharge or Emissions**

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge or emission of any pollutant not identified in the application, or more frequently than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. 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 steam generating capacity must be reported by submission of an appropriate application for amendment, certification or modification pursuant to Chapter 403.516, F.S.

#### **D. Compliance**

1. The Licensee shall comply with all rules adopted by the Department subsequent to the issuance of this certification, which prescribe new or stricter criteria to the extent that the rules are applicable to electric power plants. Except where express variances have been granted, subsequently adopted rules which prescribe new or stricter criteria, which are applicable to electrical power plants, shall operate as a modification pursuant to Section 403.511(5)(a), F.S.

2. Pursuant to Section 403.511(5)(b), F.S., upon written notification to the Department's Siting Coordination Office, the Licensee may choose to operate 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 this certification, so long as this operation causes no violation of standards or these Conditions of Certification.

3. If, for any reason, the Licensee does not comply with or is unable to comply with any limitation specified in this certification, the Licensee shall notify the Southeast District Office of the Department by telephone during the working day that said noncompliance occurs. After normal business hours, the Licensee shall report any condition that poses a public health threat to the State Warning Point at telephone number (850) 413-9911 or (850) 413-9912. The Licensee shall confirm this situation to the Southeast DEP District Office in writing within seventy-two (72) hours of becoming aware of such conditions and shall supply the following information:

- a. A description of the discharge and cause of noncompliance; and,
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and,
- c. Steps being taken to reduce, eliminate and prevent recurrence of the non-complying event.

4. 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 non-complying event.

#### **E. Right of Entry**

The Licensee shall allow authorized agency personnel, including but not limited to representatives of the Florida Department of Environmental Protection, and/or Water Management District, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, and recognizing the security that must be maintained at the facility, depending upon the nature of the concern being investigated:

1. To enter upon the Licensee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit, and



2. To have access to and copy any records required to be kept under the conditions of this certification; and

3. To inspect the facilities, equipment, practices, or operations regulated or required under these Conditions; and

4. To sample or monitor any substances or parameters at any location necessary to assure compliance with these Conditions of Certification or Department rules.

#### **F. Enforcement**

1. The terms, conditions, requirements, limitations and restrictions set forth in these Conditions of Certification are binding and enforceable pursuant to Sections 403.141, 403.161, 403.514, 403.727, and 403.859 through 403.861, F.S. Any noncompliance with a condition of certification or condition of a federally delegated or approved permit constitutes a violation of chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation, or permit revision. The Licensee is placed on notice that the Department will review this certification periodically and may initiate enforcement action for any violation of these conditions.

2. All records, notes, monitoring data and other information relating to the construction or operation of this certified source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the certified source arising under the Florida Statutes or Department rules, except where such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

3. The specific terms of the Fifth Supplemental Agreement and the Revised Plan, referenced in Condition X of these Conditions of Certification, shall remain enforceable by the SFWMD by the terms of the Fifth Supplemental Agreement.

#### **G. Revocation or Suspension**

This certification may be suspended or revoked pursuant to Section 403.512, Florida Statutes, or for violations of any of these Conditions of Certification. This approval is valid only for the specific processes and operations identified within the application and indicated in the approved drawings or exhibits. 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 certified facilities that are the cause of such action, and other facilities at the Turkey Point Plant shall remain unaffected by such action.

#### **H. 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. As provided in Section 403.511, F.S., the issuance of this certification does not convey neither any vested rights nor any exclusive privileges. Neither does it authorize any injury to human health or welfare, animal or plant life, public or private property or any invasion of personal rights.

This certification does not allow any infringement of federal, state, or local laws or regulations, nor does it allow the Licensee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department or these Conditions of Certification.. This approval is not a waiver of any other Department approval that may be required for other aspects of the total project under federally delegated or approved programs.

**I. Property Rights**

The issuance of this certification does not convey any property rights in either real or personal property, or any exclusive privileges thereto. The applicant shall obtain title, lease, easement, or right of use from the State of Florida to any sovereign submerged lands utilized by the project.

**J. 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 circumstances, is held invalid, the application of such provision to other circumstances and the remainder of the certification shall not be affected thereby.

**K. Procedural Rights**

No term or condition of certification shall be interpreted to preclude the post-certification exercise by the Licensee of whatever procedural rights it may have under Chapter 120, F.S.

**L. Review of Site Certification**

The certification shall be final unless revised, revoked or suspended pursuant to law.

**M. 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 the licensee of whatever procedural rights it may have under Chapter 120, F.S., including those related to rule-making proceedings.

**N. Modification of Conditions**

The conditions of this certification may be modified in the following manner:

1. Pursuant to Section 403.516(1), F.S., Section 120.569(2)(n), F.S., and Rule 62-17.211, F.A.C., the Siting Board hereby delegates the authority to the Secretary of the Department of Environmental Protection who further delegates to the Siting Office the authority to modify, after notice and opportunity for hearing, any conditions herein which would not otherwise require approval from the Siting Board

2. 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 project. In

the event of a conflict, the more stringent of the conditions of such permits or of these Conditions of Certification shall be controlling.

3. The Secretary of the Department may modify any condition of this certification except those pertaining to a change in fuel.

4. The Secretary of the Department may modify any condition of this certification if the Secretary finds that an immediate danger to the public health, safety, or welfare requires the issuance of an immediate final order temporarily modifying these Conditions of Certification. If the Secretary elects to exercise this delegated authority, the Secretary shall prepare an immediate final order that recites with particularity the facts underlying the Secretary's finding of an immediate danger to the public health, safety, or welfare. The immediate final order and the modification to the Conditions of Certification shall be effective only for so long as is necessary to address the immediate danger and shall be applicable or enjoined from the date rendered.

5. In the event of a prolonged [thirty (30) days or more] equipment malfunction or shutdown of pollution control equipment, the Secretary of the Department may allow facility operation to resume and continue to take place under an immediate final order temporarily modifying these Conditions of Certification, provided that the Licensee demonstrates that such operation will be in compliance with all applicable ambient air quality standards and PSD increments, water quality standards and rules, solid waste rules, domestic wastewater rules and industrial wastewater rules. During such malfunction or shutdown, the operation of the facility shall comply with all other requirements of this certification and all applicable state and federal emission and effluent standards not affected by the malfunction or shutdown.

6. All other modifications to these conditions shall be made in accordance with Section 403.516, Florida Statutes.

7. Any modification to these conditions shall only affect the units or other facilities that are the subject of the modification request or the Department's proposed order of modification.

#### **O. Transfer of Certification**

This certification is transferable only upon Department approval in accordance with Section 403.516, F.S., and Rule 62-17.211(3) and 62-730.300, F.A.C. The Licensee shall be liable for any noncompliance of the approved activity until the transfer is approved by the Department.

#### **P. Safety**

The overall design, layout, and operation of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions. The applicable Federal Occupational Safety and Health Standards shall be complied with during construction and operation.

**Q. Screening**

The Licensee shall maintain existing screening of the site to the extent feasible through the use of acceptable structures, vegetated earthen walls, or existing or planted vegetation.

**R. Toxic, Deleterious or Hazardous Materials**

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 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. Specific criteria are established for such components in Section 62-520.420, F.A.C.

2. The Licensee shall report all spills of materials having potential to significantly pollute surface or ground waters and which are not confined to a building or similar containment structure, by telephone immediately after discovery of such spill. The Licensee shall submit a written report within forty-eight hours, excluding weekends, from the original notification. The telephone report shall be submitted by calling the DEP Southeast District Office Industrial Wastewater Compliance/Enforcement Section. After normal business hours, the Licensee shall contact the State Warning Point by calling (850) 413-9911 or (850) 413-9912. The written report shall include, but not be limited to, a detailed description of how the spill occurred, the name and chemical make-up (include any Material Safety Data Sheets) of the substance, the amount spilled, the time and date of the spill, the name and title of the person who first reported the spill, the size and extent of the spill and surface types (impervious, ground, water bodies, etc.) it impacted, the cleanup procedures used and status of completion, and include a map or aerial photograph showing the extent and paths of the material flow.

3. The Licensee shall notify the Department's Siting Coordination Office of any amendments, modifications, or renewals of NRC-issued Operating Licenses.

**S. Noise**

Construction and operation noise shall not exceed noise criteria or any applicable requirements of Miami-Dade County. The Licensee shall notify area residents in advance of the onset and anticipated duration of the steam blowout of the facility's heat recovery steam generator and steam lines

**T. Flood Control Protection**

Any construction of new facilities for the certified plant and associated facilities shall be protected from flood damage by construction in such a manner as to comply with the appropriate Miami-Dade County flood protection requirements or by flood proofing or by raising the elevation of the facilities above the 100-year flood level, whichever is more stringent. However, existing facilities are not required to be modified to comply with such flood control protection standards.



**U. Historical or Archaeological Finds**

If historical or archaeological artifacts are discovered at any time within the project site, the Licensee shall notify the DEP Southeast District office and the Bureau of Historic Preservation, Division of Historical Resources, R.A. Gray Building, Tallahassee, Florida 32399-0250, telephone number (850) 487-2073.

**V. Endangered and Threatened Species**

Prior to start of construction, the Licensee shall survey the portion of the certified site which may be affected by construction for species of animal and plant life listed as endangered or threatened by the federal government or listed as endangered by the state. If these species are found, their presence shall be reported to the Siting Coordination Office, the SED, and the Florida Fish & Wildlife Conservation Commission's Office of Policy and Stakeholder Coordination. These species shall not be disturbed, if practicable. If avoidance is not practicable, the endangered species shall be treated as recommended by the appropriate agency. Entombment of gopher tortoises shall not be allowed.

**W. Dispute Resolution**

If a dispute situation arises between the Licensee and an agency exercising its regulatory jurisdiction, the Department shall act as mediator to resolve it. If, after mediation, a mutual agreement cannot be reached between the parties, 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.

**X. Laboratories and Quality Assurance**

1. The Licensee shall ensure that all laboratory analytical data submitted to the Department, as required by this certification, are from a laboratory which is approved by the Department and meets the requirements of Chapter 62-160, F.A.C.

2. The Licensee shall ensure that all samples required pursuant to this certification are taken by an appropriately trained technician following EPA and Department approved sampling procedures and chain-of-custody requirements in accordance with Rule 62-160, F.A.C. Records of monitoring information shall follow the guidelines in Rule 62-160.600, F.A.C. All chain-of-custody records shall be retained on-site for at least three (3) years and made available to the Department immediately upon request.

3. Records of monitoring information shall include:

- a. the date, exact place, and time of sampling or measurements;
- b. the person responsible for performing the sampling or measurements;
- c. the dates analyses were performed;
- d. the person responsible for performing the analyses;
- e. the analytical techniques or methods used; and,
- f. the results of such analyses.



## **Y. Procedures for Post-Certification Submittals**

1. The licensee shall provide within 90 days after certification a complete summary of those submittals identified in the Conditions of Certification where due-dates for information required of the licensee are identified. Such submittals shall include, but are not limited to, monitoring reports, management plans, wildlife surveys, etc. The summary shall be provided to the Siting Coordination Office and any affected agency or agency subunit to whom the submittal is required to be provided, in a sortable spreadsheet, via CD and hard copy, in the format identified below or equivalent.  
(62-17.191, F.A.C.)

Condition Number	Requirement and timeframe	Due Date	Name of Agency or agency subunit to whom the submittal is required to be provided

2. Purpose of Submittals: Conditions of Certification which provide for the post-certification submittal of information to DEP or other agencies by the licensee are for the purpose of facilitating monitoring by the Department of the effects arising from the certified facilities. This monitoring is for DEP to assure, in consultation with other agencies with applicable regulatory jurisdiction, continued compliance with the conditions of certification, without any further agency action.

3. Filings: All post-certification submittals of information by the licensee or copies of applications for separate federal permits which are to be issued by State agencies are to be filed with DEP Siting Office. Copies of each submittal shall also be simultaneously copied to any other agency indicated in the specific conditions requiring the post-certification submittals.

4. Completeness: The DEP shall promptly review each post-certification submittal for completeness. This review shall include consultation with the other agencies receiving the post-certification submittal. For the purposes of this condition, completeness shall mean that the information submitted is both complete and sufficient. If the submittal is found to be incomplete, the licensee shall be so notified. Failure to issue such a notice within forty-five (45) days after filing of the submittal shall constitute a finding of completeness. (62-17.191, F.A.C.)

5. Interagency Meetings: Within sixty (60) days of the filing of a complete post-certification submittal, DEP may conduct an interagency meeting with other agencies which received copies of the 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 reasonable assurance of compliance with the conditions of certification has been provided. 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 time frames for review established by these conditions.

6. **Reasonable Assurance of Compliance:** Within ninety (90) days of the filing of a complete post-certification submittal, unless another date is specified herein, DEP shall give written notification to the licensee and the agencies to which the post-certification information was submitted of its determination whether there is reasonable assurance of compliance with the conditions of certification. If it is determined that reasonable assurance has not been provided, the licensee shall be notified with particularity and possible corrective measures suggested. Failure to notify the licensee in writing within ninety (90) days of receipt of a complete post-certification submittal shall constitute a determination of reasonable assurance of compliance.

## **V. CONSTRUCTION**

### **A. Standards and Review of Plans**

1. All construction at the facility shall be pursuant to the design standards presented in the application or amended application and the standards or plans and drawings submitted and signed by an engineer registered in the state of Florida. The site plan layout for Unit 5 shall be consistent with or have wetland impacts less than the plan attached hereto as Exhibit A. Any subsequent revisions to the site plan shall avoid and minimize wetland impacts at least to the same extent as is accomplished in Exhibit A. Specific DEP Southeast District Office acceptance of plans will be required based upon a determination of consistency with approved design concepts, regulations, and these conditions prior to initiation of construction of any: industrial waste treatment facility; domestic waste treatment facility; potable water treatment and supply system; ground water monitoring system, storm water runoff system; solid waste disposal area; and hazardous or toxic handling facility or area. The Licensee shall present specific plans for these facilities for review by the DEP Southeast District Office at least ninety (90) days prior to construction of those portions of the facility for which the plans are then being submitted, unless other time limits are specified in the following conditions herein. Review and approval or disapproval shall be accomplished in accordance with Chapter 120, F.S., or these Conditions of Certification as applicable.

2. The Department must be notified in writing and prior written approval obtained for any material change or revision to be made to the project during construction which is in conflict with these Conditions of Certification. If there is any material change or revision made to a project approved by the Department without this prior written approval, the project will be considered to have been constructed without Departmental approval, the construction will not be cleared for service, and the construction will be considered a violation of these Conditions of Certification.

3. Ninety (90) days prior to the anticipated date of first operation, the Licensee shall provide the Department with an itemized list of any changes made to the facility design and operation plans that would affect a change in discharge, as referenced in Condition

IV.C., subsequent to the time of issuance of this Certification. This pre-operational review of the final design and operation shall demonstrate continued compliance with Department rules and standards.

4. Final drainage plans illustrating any new or modified stormwater treatment facilities and conveyances for construction phases of the certified facility site shall be submitted to the DEP Southeast District Manager and the SFWMD as applicable for review and approval prior to construction of any such conveyance or facility. The Department shall indicate its approval or disapproval within 60 days of the submittal. Analysis report of the produced ground samples shall be submitted 30 days before surface water discharge begins.

#### **B. Control Measures**

1. To control runoff which may reach and thereby pollute waters of the state, necessary measures shall be utilized to settle, filter, treat or absorb silt containing or pollutant laden storm water to ensure against spillage or discharge of excavated material that may cause turbidity in excess of 29 Nephelometric Turbidity Units (NTU) above background in waters of the state or significant degradation of Outstanding Florida Waters in violation of Rule 62-4.242, F.A.C. Control measures may consist of sediment traps, barriers, berms, and vegetation plantings. Exposed or disturbed soil shall be protected and stabilized as soon as possible to minimize silt and sediment-laden runoff. The pH of the runoff shall be kept within the range of 6.0 to 8.5. The Licensee shall comply with the applicable nonprocedural requirements in Rules 40B-4, 40C-42, 40D-4 and/or 40E-4, F.A.C.

2. Any open burning in connection with initial land clearing shall be in accordance with Chapter 62-256, F.A.C., Chapter 5I-2, F.A.C., Uniform Fire Code Section 33.101, Addendum, and any other applicable county regulation. Any burning of construction-generated material, after initial land clearing that is allowed to be burned in accordance with Chapter 62-256, F.A.C., shall be approved by the DEP Southeast District office in conjunction with the Division of Forestry and any other county regulations that may apply. Burning shall not occur if not approved by the appropriate agency or if the Department or the Division of Forestry has issued a ban on burning due to fire safety conditions or due to air pollution conditions.

3. Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the appropriate local health agency.

4. Solid wastes resulting from construction shall be disposed of in accordance with the applicable regulations of Chapter 62-701, F.A.C.

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

6. The Licensee shall develop the site so as to retain the buffer of natural vegetation as described in the Unit 5 application and in Condition IV.Q., Screening.

7. Dewatering operations during construction shall be carried out in accordance with Rule 62-621.300(2), F.A.C.

**C. Environmental Control Program**

An environmental control program shall be established under the supervision of a Florida registered professional engineer or other qualified person to assure that all construction activities conform to applicable environmental regulations and the applicable Conditions of Certification. If a violation of standards, harmful effects or irreversible environmental damage not anticipated by the application or the evidence presented at the certification hearing is detected during construction, the Licensee shall notify the DEP District Office as required by Condition IV.D., Compliance.

**D. Reporting**

Notice of commencement of construction shall be submitted to the Siting Coordination Office and the DEP Southeast District Office within fifteen (15) days after initiation. Starting three (3) months after construction commences, a quarterly construction status report shall be submitted to the DEP Southeast District Office. The report shall be a short narrative describing the progress of construction.

**VI. UNIT 5 SPECIFIC CONDITIONS**

**A. Air**

1. The construction and operation of the Turkey Point Unit 5 project shall be in accordance with all applicable provisions of Title V Air Operation Permit No. 0250003-11-AV, and Permit No. PSD-FL-338 (DEP Permit No. 0250003-006-AC), (attached as Appendices A and B) as well as any other permit required under a federal program such as Title III, Title IV and/or Title V issued for Turkey Point Unit 5 and any revisions, amendments, corrections or modifications thereto, and of Chapters 62-210 through 62-297, F.A.C.

2. All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Compliance Authority at:

Air Quality Division  
DEP Southeast District Office  
400 North Congress, Suite 200  
West Palm Beach, Florida 33401

Copies of all such documents shall also be submitted to Miami-Dade

County at

Air Quality Management  
Department of Environmental Resources Management  
33 Southwest 2nd Avenue, Suite 900  
Miami, Florida 33130-1540

All documents related to applications for permits to construct, operate or modify an emissions unit shall be submitted to:

Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road (MS #5505)



Tallahassee, Florida 32399-2400

and notice of all applications for permits to construct, operate or modify an emissions unit shall be submitted to:

Siting Coordination Office  
Florida Department of Environmental Protection  
2600 Blair Stone Road (MS #48)  
Tallahassee, Florida 32399-2400

**B. Wetlands**

1. Mitigation – Mitigation shall include on-site restoration and enhancement, purchase of credits in a mitigation bank, and contribution of wetlands for conservation purposes, as described in the document “Turkey Point Expansion Project, Refined Mitigation Proposal, FPL, April 2004” or as subsequently amended or modified.

a. Initial mitigation, by planting wetland plant species and hydrologic improvements, shall occur within 30 days of completion of construction; at this time the Licensee shall submit to the Department a baseline (“time zero”) report. The report shall include details on the progress of the hydrologic improvements, a list of species planted, the number of individuals planted, and the date of the plantings. The report shall contain photographs, taken from referenced locations, to represent the entire site. Additionally, a drawing shall be included to show the location and direction of the camera. Subsequent monitoring reports shall be submitted quarterly, the first report being due 90 days after the baseline report. The quarterly reports shall include the number of plants surviving from the initial planting, additional seedlings planted, and explanations if survivorship is trending toward failure. The reports shall include photographs from the locations referenced in the baseline report.

b. Mitigation will be deemed successful when all of the following criteria have been continuously met on the mitigation site for a period of at least two growing seasons (but no earlier than two years after the initial planting), without intervention in the form of irrigation, dewatering, removal of undesirable vegetation, or replanting of desirable vegetation:

- i. The percent cover of the mitigation wetland area exceeds 80% of native wetland plants
- ii. Nuisance and exotic species are limited to 5% or less of the total cover.
- iii. The desirable plants are reproducing naturally, either by normal, healthy vegetative spread, or through seedling establishment, growth and survival.
- iv. The size distribution of the desirable species increases with time.
- v. The functional assessment scores indicate that the functional value of the wetlands have made up for the functional loss of the project’s impacts.



c. The Licensee shall notify the SED whenever the Licensee believes the mitigation is successful, but in no event earlier than two years after the mitigation is implemented.

i. The notice shall include a copy of the most recent Annual Progress and Mitigation Success Report and a narrative that describes how the reported data support the claim that each of the mitigation success criteria has been met. The Licensee shall allow SED personnel the opportunity to schedule and conduct an on-site inspection of the mitigation site.

ii. Within 60 days of receipt of the notice, the SED shall notify the Licensee by certified mail that:

(1) That the mitigation has been successfully completed, or

(2) That the mitigation is not successful, identifying specifically those elements of the mitigation that do not meet the success criteria, or

(3) That the mitigation cannot be determined to be successful at this time, identifying specifically those elements of the mitigation that prevent the SED from determining whether the mitigation is successful.

iii. When the SED notifies the Licensee that the mitigation is successful, or, if the SED fails to notify the Licensee within the time period prescribed by this condition, then the Licensee's mitigation obligation under the terms of this certification shall be deemed satisfied.

d. The Licensee shall prepare a revised mitigation plan if, three (3) years after completion of planting, it is determined by the SED or the Licensee that the mitigation site will not meet the success criteria. The revised plan shall be submitted to the SED for review and approval and shall include the following:

i. The plan shall discuss why the mitigation site is not meeting the success criteria and propose a plan of action by which to correct any deficiencies in the original plan.

ii. The Licensee shall propose a schedule for implementation and completion of the provisions of the revised mitigation plan. Upon approval by the SED, the Licensee shall begin implementing the revised plan within 60 days of SED approval. The approved revised plan shall be copied to the Siting Coordination Office and shall be made a part of these Conditions of Certification.

2. Narrative progress reports shall be submitted every 6 months indicating the status of the mitigation efforts. The cover page shall indicate the certification number, project name and the Licensee name. The first semi-annual progress report shall be submitted six months after the date of certification issuance. Reports shall be submitted every six (6) months thereafter until all mitigation work required by these conditions of certification has been completed. The reports shall include the following information:

a. The date activities were begun. Indicate whether work has begun on-site.

b. A brief description of the extent of work (i.e., dredge, fill, monitoring, mitigation, management, maintenance) completed since the previous report or since this certification was issued. Show on copies of the site drawings those areas where work has been completed.

c. A brief description and the extent of work (i.e. dredge, fill, monitoring, mitigation, management, maintenance) anticipated to be accomplished within the next six months. Indicate on copies of the site drawings those areas where it is anticipated that work will be done.

d. The reports shall include photographs taken from the permanent stations, some of which must be in the vegetation sampling areas, a description of problems encountered and solutions undertaken, and anticipated work for the next six months.

e. The reports shall include, on the first page and just below the title, a signed certification by the individual who supervised preparation of the report the following statement: "This report represents a true and accurate description of the activities conducted during the six month period covered by this report."

3. Best management practices for erosion control shall be implemented and maintained at all times during construction to prevent siltation and turbid discharges in excess of State water quality standards pursuant to Rule 62-302, F.A.C., or in excess of the ambient turbidity levels of Outstanding Florida Waters. Methods shall include, but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and the installation of turbidity screens around the immediate project site.

4. The Licensee shall be responsible for ensuring that erosion control devices/procedures are inspected and maintained daily during all phases of construction authorized by these Conditions of Certification until all areas that were disturbed during construction are sufficiently stabilized to prevent erosion, siltation, and turbid discharges.

5. The following measures shall be taken immediately by the Licensee whenever turbidity levels within waters of the State surrounding the project site exceed 29 NTUs above background or exceed the ambient water quality levels of Outstanding Florida Waters:

a. Immediately cease all work contributing to the water quality violation. Operations may not resume until the SED gives authorization to do so.

b. Notify the SED Environmental Resource Compliance/Enforcement Section at 561/681-6643 within 24 hours of the time the violation is first detected.

c. Stabilize all exposed soils contributing to the violation. Modify the work procedures that were responsible for the violation, install additional turbidity containment devices and repair any non-functioning turbidity containment devices.

6. The Licensee shall be responsible for ensuring that the construction and operation of the Project results in no significant degradation of the adjacent Biscayne National Park, an Outstanding Florida Water, in violation of Rule 62-4.242 and 62-302, F.A.C.

**C. Domestic and Industrial Waste**

The Licensee is hereby authorized to operate water and wastewater facilities as shown or described in the Turkey Point Unit 5 Site Certification Application and other documents on file with the Department and made a part hereof. The Licensee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment.

**D. Stormwater**

1. Prior to construction, the Licensee shall submit a revised analysis to demonstrate that:
  - a. The post-development peak discharge rate does not exceed the pre-development discharge rate for the 25-year, 72-hour design storm, and
  - b. That the volume of the water quality treatment facility for off-site discharges is adequate to handle the post-development peak flow.
2. Final drainage plans illustrating all stormwater treatment facilities and conveyances for construction phase and for the operational phase of the Unit 5 site shall be submitted to the SED for review and approval prior to construction of any such conveyance or facility. The SED shall indicate its approval or disapproval within 60 days of the submittal or the submittal shall be considered approved.
3. Site construction activities shall be conducted in a manner which does not cause violations of state water quality standards. The Licensee shall implement best management practices for erosion and pollution control to prevent violation of state water quality standards. Temporary erosion control measures shall be implemented prior to any construction, and installation of permanent control measures shall be completed within seven (7) days of the start of any construction activity.
4. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into a receiving water body exists. Turbidity barriers shall remain in place at all locations until construction is completed, soils are stabilized, and vegetation has been established. The Licensee shall correct any erosion or shoaling that causes adverse impacts to water resources.
5. All construction at the facility shall be pursuant to the design standards presented in the application or amended application and the standards or plans and drawings submitted and signed by an engineer registered in the state of Florida. Specific SED acceptance of plans will be required based upon a determination of consistency with approved design concepts, regulations, and these conditions prior to initiation of construction of the stormwater management system. Review and approval or disapproval shall be accomplished in accordance with Chapter 120, F.S., or these conditions of certification as applicable.
6. Within 30 days after completion of construction of the Stormwater management system, the Licensee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing the form "Environmental Resource Permit As-Built Certification by a

Registered Professional" (Form No. 62-343.900(5), F.A.C.). The statement of completion and certification shall be based on on-site observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the Department that the system is ready for inspection. Additionally, if deviation from the approved drawings is discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor.

**E. Solid and Hazardous Waste**

No solid or hazardous waste is to be permanently stored onsite. Any hazardous waste generated on site shall be contained and transferred for disposal to a properly licensed contractor in accordance with the Department's rules and regulations.

**VII. UNIT 3 & 4 SPECIFIC CONDITIONS**

**A. Air**

The operation of the Turkey Point Unit 3 and 4 Nuclear Plant shall be in accordance with all applicable provisions of Title V Air Operation Permit 0250003-010-AV. Title V Air Operation Permit 0250003-010-AV is incorporated by reference herein as part of this Certification and attached as Appendix C.

The provisions of the above shall be conditions of this certification. The licensee shall comply with the substantive provisions and limitations set forth in Title V Air Operation Permit Number 0250003-010-AV as part of these Conditions of Certification, and as those provisions may be modified, amended, or renewed in the future by the Department. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions shall be a violation of these Conditions of Certification.

**B. Radiological**

**1. Decommissioning**

Upon application to the U.S. Nuclear Regulatory Commission (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 Miami-Dade County in biennial updating of 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 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 Turkey Point 3 and 4 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. (Fla. Stat. Section 403.502.) The Department has determined that the construction and operation of Turkey Point 3 and 4 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 Turkey Point 3 and 4 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 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 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. Should such appropriate enforcement action not be forthcoming, and the Department determines that such enforcement action is necessary to insure that adverse effects on human health and the environment by continued operation of Turkey Point 3 and 4 are minimized, the Department reserves the right to take appropriate State enforcement action pursuant to Chapter 403, Florida Statutes, against the applicant for violation of any of the above radiological release limitations on the grounds that the violation of such limitations constitutes a violation of this express condition of certification.

### **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. *Interagency Agreement***

The applicant shall comply with the Emergency Response Capability Agreement between the Florida Department of Health and the Florida Power and Light Company effective July 1, 1982, or as may be subsequently revised. (Attached as Exhibit B.)

**6. *Reservation of Legal Rights***

The Department recognizes that the NRC has exclusive authority in certain areas related to the construction and operation of Turkey Point Units 3 and 4. 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.

**7. *Annual Radiological Environmental Operating Report***

Upon submittal to the NRC, a copy of the Annual Radiological Environmental Operating Report for Turkey Point Units 3 & 4 shall be provided to the Department's Siting Coordination Office.

**VIII. INDUSTRIAL WASTE DISCHARGES**

Any discharges during construction and operation of Units 3, 4 & 5 shall be in accordance with all applicable provisions of NPDES permit No. FL0001562-004-IWIN (attached as Appendix D) as well as any subsequent modifications, amendments and/or renewals.

**IX. BISCAYNE BAY SURFACE WATER MONITORING**

As proposed, the Turkey Point Units 3 and 4 uprate project may cause an increase in temperature and salinity in the cooling canal system. Field data is needed in order to determine impacts of the proposed changes in the Turkey Point cooling canal system on Biscayne Bay.

A. No later than July 31, 2009, FPL shall submit a Biscayne Bay Surface Water Monitoring Plan (Plan) pursuant to Chapter 62-302, F.A.C. to the DEP Southeast District Office for review and approval. The submittal deadline may be extended upon agreement between the Licensee, DEP, SFWMD and Miami-Dade County. Agreements for extensions shall be submitted to the Siting Office prior to the deadline. The Plan shall include, at a minimum, the following components:

1. salinity and temperature monitoring within the surface waters of the Bay, including the Biscayne Bay Aquatic Preserve; (Specific parameters to be measured, including specific conductance and temperature, shall be sampled in accordance with Chapter 62-160, F.A.C.);

2. a minimum of five monitoring stations located near shore in the vicinity of the Turkey Point Plant; and

3. specific monitoring locations, sampling frequencies and methods, and specific parameters to be monitored.

B. This monitoring data shall be compared to data using compatible monitoring instrumentation already in place in Biscayne Bay.

C. FPL shall continue the monitoring of salinity and temperature in the cooling canals under its industrial waste water facility permit.

D. If the Department determines that the pre- and post-Uprate salinity and temperature monitoring data indicate potential adverse changes in the surface water in Biscayne Bay, then the Department may propose additional measures to evaluate or to abate such impacts to Biscayne Bay.

E. The Plan, including monitoring locations, shall be approved prior to implementation. 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 Plan, the Department shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information. Any changes to the approved Surface Water Monitoring Plan shall be approved by Coastal and Aquatic Managed Areas personnel in consultation with other FDEP personnel.

[62-160, 62-302, 62-302.700, 62-520.600, F.A.C.]

## **X. SURFACE WATER, GROUND WATER, ECOLOGICAL MONITORING**

This is a consolidated condition agreed upon by three agencies, Department of Environmental Protection (DEP), Miami-Dade County Department of Environmental Resource Management (DERM) and the South Florida Water Management District (SFWMD). This consolidated condition sets forth the framework for new monitoring and, as may be needed, abatement or mitigation measures, for approval of FPL's Turkey Point Units 3 and 4 Uprate Application. Specific monitoring and potential modeling parameters will be identified and implemented pursuant to a monitoring plan as part of a supplemental agreement between FPL and the SFWMD as described below.

A. In addition to the monitoring framework set forth in this consolidated condition, no later than July 31, 2009, FPL shall execute a SFWMD approved Fifth Supplemental Turkey Point Agreement ("Fifth Supplemental Agreement") to the original 1972 Agreement between FPL and the SFWMD pertaining to FPL's obligation to monitor for impacts of the Turkey Point cooling canal system on the water resources of the SFWMD in general and the facilities and operations of the SFWMD (the "Agreement"). Subject to the SFWMD's approval, FPL shall also amend the Agreement's Revised Operating Manual as referenced in paragraph C. "Monitoring Provisions" (the "Revised Plan") of the Fourth Supplemental Agreement, dated July 15, 1983. The Revised Plan shall be incorporated into the Fifth Supplemental Agreement and shall include assessment of potential impacts to surface water and ground water including wetlands, as needed, in the vicinity of the cooling canal system. The specific monitoring boundaries shall be

determined as part of the Revised Plan. The submittal deadline may be extended upon agreement between the Licensee, the SFWMD, DEP and Miami-Dade County. Agreements for extensions shall be submitted to the Siting Office prior to the deadline.

B. The Revised Plan shall be designed to be in concurrence with other existing and ongoing monitoring efforts in the area and shall include but not necessarily be limited to, surface water, groundwater and water quality monitoring, and ecological monitoring to:

1. delineate the vertical and horizontal extent of the hyper-saline plume that originates from the cooling canal system and to characterize the water quality including salinity and temperature impacts of this plume for the baseline condition;
2. determine the extent and effect of the groundwater plume on surface water quality as a baseline condition; and
3. detect changes in the quantity and quality of surface and ground water over time due to the cooling canal system associated with the Uprate project. The Revised Plan shall include installation and monitoring of an appropriate network of wells and surface water stations. The Revised Plan shall be approved by the SFWMD in consultation with the DEP Office of Coastal and Aquatic Managed Areas, the DEP Southeast District Office and DERM.

C. FPL shall transmit electronic copies of all data and reports required under the Fifth Supplemental Agreement and the Revised Plan in accordance with timeframes as approved in the Fifth Supplemental Agreement to:

SFWMD, Director, Water Supply (or alternative transmittal procedures to be described in the Fifth Supplemental Agreement);

Miami-Dade County, Director, DERM;

DEP, Director, Southeast District Office;

DEP Siting Coordination Office

DEP, Director, Biscayne Bay Aquatic Preserve Manager,

D. If the DEP in consultation with SFWMD and DERM determines that the pre- and post-Uprate monitoring data: is insufficient to evaluate changes as a result of this project; indicates harm or potential harm to the waters of the State including ecological resources; exceeds State or County water quality standards; or is inconsistent with the goals and objectives of the CERP Biscayne Bay Coastal Wetlands Project, then additional measures, including enhanced monitoring and/or modeling, shall be required to evaluate or to abate such impacts. Additional measures include but are not limited to:

1. the development and application of a 3-dimensional coupled surface and groundwater model (density dependent) to further assess impacts of the Uprate Project on ground and surface waters; such model shall be calibrated and verified using the data collection during the monitoring period;
2. mitigation measures to offset such impacts of the Uprate Project necessary to comply with State and local water quality standards, which may include methods and features to reduce and mitigate salinity increases in groundwater including the use of highly treated reuse water for recharge of the Biscayne Aquifer or wetlands rehydration;

3. operational changes in the cooling canal system to reduce any such impacts; and/or

4. other measures to abate impacts as may be described in the Revised Plan.

[Sections 373.016, 373.223, F.S.; Rules 40E-4.011, 40E-4.301, 40E-4.302, F.A.C.; Sections 62-302 and 62-520, F.A.C.; Section 24-42, Code of Miami-Dade County, Miami-Dade County Comprehensive Development Master Plan (CDMP) Land Use Element, Conservation Element, Intergovernmental Coordination Element, Coastal Management Element.]

## **XI. COOLING CANAL SYSTEM**

Permits and approvals that regulate the operation of the cooling canal system are incorporated herein and attached as Appendices. These permits and approvals shall be fully enforceable by both the permitting agency and as Conditions of Certification for Units 3 and 4. Any violation of such permits and approvals, where it is determined that Units 3 and 4 are the cause, shall also be a violation of these Conditions of Certification.

## **XII. WATER MANAGEMENT DISTRICT**

### **A. General**

1. If this Certification is transferred, pursuant to Condition IV.O., from the Licensee to another party, the Licensee from whom the Certification is transferred shall remain liable for corrective actions that may be required as a result of any violations that occurred prior to the transfer.

2. This Certification is based in part on the Licensee's submitted information to the SFWMD which reasonably demonstrates that harm to the site water resources will not be caused by the authorized activities. The plans, drawings and design specifications submitted by the Licensee shall be considered the minimum standards for compliance with conditions XI.

3. This project must be constructed, operated and maintained in compliance with and meet all non-procedural requirements set forth in Chapter 373, F.S., and Chapters 40E-2 (Consumptive Use), 40E-3 (Water Wells), and 40E-20 (General Water Use Permits), F.A.C.

4. It is the responsibility of the Licensee to ensure that harm to the water resources does not occur during the construction, operation, and maintenance of the project.

5. The Licensee shall hold and save the SFWMD harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment and/or use of any system authorized by this Certification, to the extent allowed under Florida law.

6. The Licensee shall be responsible for the construction, operation, and maintenance of all facilities installed for the proposed project.

7. SFWMD representatives shall be allowed reasonable escorted access to the power plant site, the water withdrawal facilities and any associated facilities to inspect and observe any activities associated with the construction of the proposed project and/or the operation and/or maintenance of the on-site wells in order to determine compliance with these



Conditions of Certification. The Licensee shall not refuse entry or access to any SFWMD representative who, upon reasonable notice, requests entry for the purpose of the above noted inspection and presents appropriate credentials.

8. Information submitted to the SFWMD subsequent to Certification, in compliance with these Conditions of Certification, shall be for the purpose of the SFWMD determining the Licensee's compliance with conditions XI and the non-procedural criteria contained in Chapters 40E-2, 40E-3, and 40E-20, F.A.C., as applicable, prior to the commencement of the subject construction, operation and/or maintenance activity covered by this Certification.

9. The SFWMD may take any and all lawful actions that are necessary to enforce any condition of this Certification based on the authorizing statutes and rules of the SFWMD. Prior to initiating such action, the SFWMD shall notify the Siting Coordination Office of DEP of the proposed action.

10. At least ninety (90) days prior to the commencement of construction of any portion of the project, the Licensee shall submit to SFWMD staff, for a completeness and sufficiency review, any pertinent additional information required under conditions XI for that portion of project. If SFWMD staff does not issue a written request for additional information within thirty (30) days, the information shall be presumed to be complete and sufficient.

11. Within sixty (60) days of the determination by SFWMD staff that any additional information is complete and sufficient, the SFWMD shall determine and notify the Licensee in writing whether the proposed activities conform to SFWMD rules, as required by Chapters 40E-2, 40E-3, and 40E-20, F.A.C., and these Conditions of Certification. If the information is not complete or sufficient, the SFWMD shall identify what items remain to be addressed. No construction activities shall begin until the SFWMD has notified the Licensee in writing that the activities are in compliance with the applicable SFWMD criteria, or failed to notify the Licensee in writing within sixty (60) days of finding the information to be complete and sufficient.

12. The Licensee shall submit any proposed revisions to the site specific design authorizations specified in this Certification to the SFWMD for review and approval prior to implementation. The submittal shall include all the information necessary to support the proposed request, including detailed drawings, calculations and/or any other applicable data. Such requests may be included as part of an appropriate additional information submittal required by this Certification provided they are clearly identified as a requested amendment or modification to the previously authorized design

#### **B. Water Use Authorizations**

1. In the event of a declared water shortage, the Licensee must comply with any water withdrawal reductions ordered by the SFWMD in accordance with the Water Shortage Plan, Chapter 40E-21, F.A.C.

2. The Licensee shall mitigate interference with existing legal uses that were caused in whole or in part by the Licensee's withdrawals, consistent with the approved mitigation plan. As necessary to offset the interference, mitigation will include pumpage reduction, replacement of the impacted individual's equipment, relocation of wells, change in

withdrawal source, or other means. Interference to an existing legal use is defined as an impact that occurs under hydrologic conditions equal to or less severe than a 1 in 10 year drought event that results in the:

- a. Inability to draw water consistent with provisions of the permit, such as when remedial structural or operational actions not materially authorized by existing permits must be taken to address the interference; or
- b. Change in the quality of water pursuant to primary State Drinking Water Standards to the extent that the water can no longer be used for its authorized purpose, or such change is imminent.
- c. The inability of an existing legal user to meet its permitted demands without exceeding the permitted allocation.

3. The Licensee shall mitigate harm to existing off-site land uses caused by the Licensee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the SFWMD will require the Licensee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to these Conditions of Certification includes:

- a. Significant reduction in water levels on the property to the extent that the designed function of the water body and related surface water management improvements are damaged, not including aesthetic values. The designed function of a water body is identified in the original permit or other government authorization issued for the construction of the water body. In cases where a permit was not required, the designed function shall be determined based on the purpose for the original construction of the water body (e.g., fill for construction, mining, drainage canal, etc.);
- b. Damage to agriculture, including damage resulting from reduction in soil moisture resulting from consumptive use;
- c. Land collapse or subsidence caused by reduction in water levels associated with consumptive use.

4. The Licensee shall mitigate harm to natural resources caused by the Licensee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the SFWMD will require the Licensee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to the conditions for permit issuance includes:

- a. Reduction in ground or surface water levels that results in harmful lateral movement of the fresh water/salt water interface;
- b. Reduction in water levels that harm the hydroperiod of wetlands;
- d. Significant reduction in water levels or hydroperiod in a naturally occurring water body such as a lake or pond;
- e. Harmful movement of contaminants in violation of state water quality standards; or

f. Harm to the natural system including damage to habitat for rare or endangered species.

5. At any time, if there is an indication that the well casing, valves, or controls associated with the on-site well system leak or have become inoperative, the Licensee shall be responsible for making the necessary repairs or replacement to restore the well system to an operating condition acceptable to the SFWMD. Failure to make such repairs shall be the cause for requiring that the well(s) be filled and abandoned in accordance with the procedures outlined in Chapter 40E-3, F.A.C.

### **C. Site Specific Design Authorizations**

1. This Certification authorizes an average daily withdrawal of 14.06 MGD and an average annual withdrawal of 4,599 MGY from the Upper production zone of the Floridan aquifer for cooling water for Unit 5 and process water for Units 1, 2, and 5. The 14.06 MGD average daily withdrawal represents the average expected 90-day water demand of the heat dissipation system for the cooling tower and for process water.

2. Upon written notification from the SFWMD that a reliable source of reclaimed water is available at the project site to serve Unit 5 in a quantity and quality acceptable to the Licensee for cooling purposes for Unit 5, the Licensee shall provide the SFWMD with a schedule for use of reclaimed water, for the SFWMD's review and approval, within 90 days of such notification. Once the use of reclaimed water has been established, the use of Floridan Aquifer water shall be reduced in proportion to the volume of reclaimed water made available to Unit #5, such that the combined sources meet the total demand of a 90-day average withdrawal of 14.06 MGD and an average annual withdrawal of 4,599 MGY. Should reclaimed water become temporarily unavailable, the Licensee shall notify the SFWMD within 24 hours of commencing temporary withdrawals from the Floridan aquifer.

3. The Licensee is authorized to construct four withdrawal wells as follows:

ID	Casing Diameter (inches)	Cased Depth (feet)	Max. Depth (feet)	Max Flow (gpm)
1	36	1,100	1,400	5,000
2	36	1,100	1,400	5,000
3	36	1,100	1,400	5,000
4	36	1,100	1,400	5,000

4. Prior to the use of any proposed withdrawal facilities authorized under this Certification, the Licensee shall equip each facility with a SFWMD-approved operating water use accounting system and submit a report of calibration to the SFWMD, pursuant to Section 4.1 of the Basis of Review For Water Use Permit Applications. In addition, the Licensee shall submit a report of recalibration for the water use accounting system for each water withdrawal facility (existing and proposed) authorized under this Certification every five years from each previous calibration, continuing at five year increments. The Licensee shall report monthly

withdrawals for each withdrawal facility to the SFWMD quarterly. The Licensee shall specify the water accounting method and means of calibration on each report.

5. *Modifications*

a. Within five years from the date of issuance of the Certification Order and every five years thereafter, unless extended by mutual agreement between the Licensee and the SFWMD, the Licensee shall submit to the SFWMD a report on the project's consistency with SFWMD's Water Use Conditions of Certification contained herein. Within 90 days after receipt of the completed report, the SFWMD shall evaluate the information contained therein and issue a written notification to the DEP and the Licensee as to whether the ground water withdrawals for consumptive use authorized by this Certification remain in compliance with the provisions of Chapter 373, F.S. and Chapter 40-2, F.A.C. in effect at the time the certification was issued by the Siting Board. In determining whether the Licensee has established that its use of water complies with rule 40E-2, F.A.C., and the Basis of Review for Water Use Permit Applications within the SFWMD, the SFWMD shall evaluate whether the Licensee's use of water interferes with a legal use of water that existed at the time the certification was issued by the Siting Board. If the notification indicates that the withdrawals are not in compliance with these provisions, the SFWMD shall recommend to the Licensee possible alternatives for bringing the withdrawals into compliance with SFWMD's Water Use Conditions of Certification contained herein. In addition, if DEP determines, in consultation with SFWMD, based upon a review of a report submitted pursuant to this condition, that the Licensee has failed to establish that the Licensee's use of water meets the consumptive water use requirements described herein, DEP may seek to modify the authorization to use water in the certification or take other appropriate measures to ensure that the consumptive use of water meets the conditions for issuance in Chapter 40E-2, F.A.C., as described herein. Any modification made pursuant to this condition shall not be subject to competing applications provided there is no increase in the allocation and no change in source.

b. The SFWMD may request a modification of the around water withdrawals for consumptive use authorized by this Certification in accordance with the provisions of Section 403.516, F.S. and Section 62-17.211, F.A.C. Any request for an increase in water withdrawals shall be made pursuant to the provisions of Section 403.516, F.S., and Section 62-17.211, F.A.C.

6. Prior to the commencement of construction of those portions of the project which involve dewatering activities, the Licensee shall submit a detailed plan for the proposed dewatering activities to the SFWMD for a determination of compliance with the non-procedural requirements of Chapters 40E-2, 40E-3 and 40E-20, F.A.C., in effect at the time of submittal. The following information, referenced to NGVD where appropriate, shall be submitted:

- a. A detailed site plan which shows the location(s) for each proposed dewatering area;
- b. The method(s) used for each dewatering operation;
- c. The maximum depth for each dewatering operation;
- d. The location and specifications for all proposed wells and/or pumps associated with each dewatering operation;



- e. The duration of each dewatering operation;
  - f. The discharge method, route, and location of receiving waters generated by each dewatering operation, including the measures (Best Management Practices) that will be taken to prevent water quality problems in the receiving water(s);
  - g. An analysis of the impacts of the proposed dewatering operations on any existing on and/or off-site legal users, wetlands, or existing groundwater contamination plumes;
  - h. The location of any infiltration trenches and/or recharge barriers;
- and
- i. All plans must be signed and sealed by a Professional Engineer or a Professional Geologist registered in the State of Florida.

7. If, during the control of these conditions of certification, any on-site wells require repair, replacement, and/or abandonment, the Licensee shall submit the information described in Chapter 40E-3, F.A.C. for review by the SFWMD prior to initiating such activities.

8. Prior to construction of the proposed on-site wells, the Licensee shall submit the drilling plans and other pertinent information required by Chapter 40E-3, F.A.C. to the SFWMD for review and approval. If the final well locations are different from those originally proposed in the site certification application, the Licensee shall also submit to the SFWMD for review and approval an evaluation of the impacts of the proposed pumpage from the alternate well location(s) on adjacent existing legal users, pollution sources, environmental features, and water bodies.

9. *Groundwater Monitoring Plan*

a. Within three months of issuance of this Certification, a preliminary groundwater monitoring plan shall be submitted to the SFWMD for a determination of compliance with the non-procedural requirements of Chapter 40E-2, F.A.C. In developing the monitoring plan, the Licensee shall consider well locations, depth and method of construction, types of screens, and frequency of data collection.

b. Within six months of issuance of this Certification, the Licensee shall implement the groundwater monitoring plan.

10. *Water Conservation Plan*

a. Prior to the commencement of construction, the Licensee shall submit a water conservation plan, as described in Chapter 40E-2, F.A.C., for review and approval by SFWMD staff.

b. The water conservation plan shall incorporate the following components:

i. An audit of the amount of water needed in the Licensee's operational processes. The following measures shall be implemented within one year of audit completion if found to be cost effective in the audit:

- (1) Implementation of a leak detection and repair program;
  - (2) Implementation of a recovery/recycling or other program providing for technological, procedural or programmatic improvements to the Licensee's facilities; and
  - (3) Use of processes to decrease water consumption.
- ii. Development and implementation of an employee awareness program concerning water conservation.

### **XIII. 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 Rule Chapters 14-96, State Highway System Connection Permits, and 14-97, Access Management Classification System and Standards, Florida Administrative Code.

#### **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, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code.

#### **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 Rule Chapter 14-46, Utilities Installation or Adjustment, Florida Administrative Code; Florida Department of Transportation's 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 Florida Department of Transportation's Project Development and Environmental Manual. U.S. 1 has been identified as Florida Intrastate Highway System (FIHS) and Strategic Intermodal System's (SIS) facilities.

#### **D. Standards:**

The Manual on Uniform Traffic Control Devices; Florida Department of Transportation's Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; Florida Department of Transportation's Standard Specifications for Road and Bridge Construction; Florida Department of Transportation's Utility Accommodation Manual; and pertinent sections of the Department of Transportation'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 Rule Chapter 14-86, Drainage Connections, Florida Administrative Code, 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. 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 Florida Department of Transportation 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 Florida Department of Transportation jurisdiction, application will be made by submitting Florida Department Transportation Form 725-040-11, Airspace Obstruction Permit Application, in accordance with the instructions therein.

**G. Level of Service on State Roadway Facilities:**

All traffic impacts to State roadway facilities on the FIHS or the SIS, or funded by Section 339.2819, Florida Statutes, will be subject to the requirements of the level of service standards adopted by local governments pursuant to Rule Chapter 14-94, Statewide Minimum Level of Service Standards, Florida Administrative Code, in accordance with Section 163.3180(10), Florida Statutes. All traffic impacts to State roadway facilities not on the FIHS, the SIS, or funded by Section 339.2819, Florida Statutes, will be subject to adequate level of service standards established by the local governments.

**H. 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; Rule Chapter 14-94, Statewide Minimum Level of Service Standards, Florida Administrative Code; Florida Department of Transportation's Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway; Florida Department of Transportation's Standard Specifications for Road and Bridge Construction; and Florida Department of Transportation'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, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code.

### **I. Railroad Spur**

Any newly proposed railroad crossing must comply with the criteria established in Rule Chapter 14-57, Florida Administrative Code (FAC). The following criteria must be considered in opening a new public highway-rail grade crossing on any state, county, or city roadway:

1. Safety
2. Necessity for rail and vehicle traffic.
3. Alternate routes.
4. Effect on rail operations and expenses.
5. Closure of one or more public railroad-grade crossings to offset opening a new crossing.
6. Design of the grade crossing and road approaches.
7. Presence of multiple tracks and their effect upon railroad and highway operations.

The installation of a new public highway-rail grade crossing must have as a minimum roadside flashing lights and gates on all roadway approaches to the crossing. The installation of the crossing surface and signals must be in accordance with current Manual of Uniform Traffic Control Devices (MUTCD), Federal Railroad Administration Rules and Regulations, American Association of State Highway and Transportation Officials (AASHTO) Policy, and the Department's Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways (Florida's Green Book).

Areas of concern to be considered in determining the rail crossing location are as follows:

1. Roads crossing the tracks at a skewed angle or where the track is curved or super-elevated;
2. Impaired sight distance for motorists and rail engineers;
3. Highway intersections within 75 feet of the crossing which create a greater potential for accidents and create minimal vehicle storage distance;
4. Crossings that are blocked for long periods of time;
5. Switching movements or turnouts;



6. Different elevations of tracks.

#### **XIV. EMERGENCY MANAGEMENT**

A. FPL shall incorporate the Unit 5 site into the Comprehensive Hurricane Preparation and Recovery Plan for the overall Turkey Point Power Plant Site.

B. FPL shall submit a formal update of the Comprehensive Hurricane Preparation and Recovery Plan to the Department of Community Affairs, the Miami-Dade County Office of Emergency Management every five (5) years following commencement of commercial operation of the Unit 5 and whenever an additional electrical generating unit is brought into service at the Turkey Point Plant site.

#### **XV. MIAMI-DADE COUNTY**

##### **A. General**

Construction and operation of the certified facilities shall be in accordance with all applicable nonprocedural requirements of the laws and ordinances of Miami Dade County in effect on November 14, 2003, including, but not limited to, the Miami Dade Comprehensive Development Master Plan and Chapters 8, 11C, 14, 18A, 24, and 33 of the Code of Miami Dade County, Florida.

##### **B. Unit 5 Expansion Project**

###### **1. Protection of Existing Legal Water Users**

a. As provided in Condition XI.B.2., if SFWMD determines that the potential exists for Licensee's proposed Floridan Aquifer withdrawals to cause interference with existing legal users, authorization for such withdrawals shall be contingent upon SFWMD establishing acceptable withdrawal rates and requiring necessary and appropriate mitigation, pursuant to SFWMD's Basis of Review for Water Use Permits, to prevent interference with existing legal users. Licensee shall submit copies of any reports on additional modeling, alternative water supplies, and mitigation plans to WASD.

b. Licensee shall provide a copy to WASD of any notice received from SFWMD pursuant to Condition XI.C.3., that a reliable source of reclaimed water is available at the Project site to serve Unit 5.

c. If reclaimed water from the South District Wastewater Treatment Plant is used as a source of makeup to the Unit 5 cooling tower, blowdown from the cooling tower shall be returned to the South District Wastewater Treatment Plant for treatment and disposal. The requirements of Section 24-11(9) of the Code of Miami Dade County, as revised in March 2004, or as subsequently revised pursuant to federal or state law, shall apply to such blowdown returned to the South District Wastewater Treatment Plant.

2. The following detailed plans must be submitted to Miami Dade County Department of Environmental Resources Management (DERM) prior to initiation of work in tidal waters or wetlands:

a. The site plan layout shall be consistent with, or have wetland impacts less than, the plans described in the document "Turkey Point Expansion Project, Refined Mitigation Proposal, FPL, April 2004" or as subsequently amended or modified.

b. Two or more sets of construction drawings and engineering calculations signed and sealed by a professional engineer registered in the State of Florida and a land survey sealed by a licensed land surveyor registered in the State of Florida for those elements of the project that involve wetlands. These plans must include sufficient detail and be prepared at a scale that clearly identifies the limits of filling in wetlands and tidal waters, on-site mitigation areas, structures other than fill in tidal waters or wetlands, and typical cross-sections of all elements of the project that affect wetlands.

c. A construction management plan which shall include methods or best management practices for preventing or controlling secondary impacts from turbidity, siltation, fugitive dust, unpermitted impacts to adjoining waters or wetlands, fill or excavated material, construction debris, noise, or artificial lighting.

d. A plan for further assessment of materials proposed to be used for filling tidal water and wetlands, including physical, chemical and biological effects tests as determined in cooperation with local and state environmental agencies. Placement of fill shall not commence until additional testing and analysis of physical, chemical, and biological characteristics of fill material have been completed in accordance with requirements of DERM.

e. A water quality and biological monitoring plan for documenting compliance with narrative and numerical water quality targets during construction.

f. A post-construction long-term water quality and biological monitoring plan for areas near or downstream of the built areas, on-site mitigation areas, and on-site restoration areas.

g. A detailed on-site mitigation and restoration plan including signed and sealed construction drawings (plan views and cross-sections), planting configuration and species list, hydraulic or tidal exchange calculations, exotic control and maintenance methods, and success criteria. This plan shall be consistent with the document "Turkey Point Expansion Project, Refined Mitigation Proposal, FPL, April 2004" or as subsequently amended or modified.

h. A plan for monitoring and responding to the occurrence of endangered (or other listed species) in the construction area.

i. A stormwater management plan, including calculations and construction drawings.

j. A plan for training all on-site construction-related workers with respect to environmental resource protection requirements.

3. The applicant shall mark in a conspicuous fashion the boundaries or limits of all work/fill areas, mitigation areas, preservation areas, or protected species habitat. This may be accomplished with fencing, flagging, buoys, silt barriers, hay bales, or other forms of durable demarcation. Field markers shall include survey benchmarks or reference points that can be compared to approved construction plans and drawings. Prior to construction in wetlands or tidal waters, the layout must be approved by DERM. The markers shall be maintained for the

entirety of construction to facilitate compliance inspections and also to reduce the chance of unauthorized impacts to resources.

4. Seven days prior to the start of construction in wetlands or tidal waters, the Licensee shall allow prior approved third party access for the salvage of desirable native vegetation occurring within the areas to be filled or cleared.

5. Dredging and filling of coastal wetlands shall be limited to the minimum amount for public necessity or enhancement of biological, chemical or physical characteristics of adjacent waters.

6. On-site mitigation and restoration areas shall be maintained free (less than 1% cover) of invasive exotic vegetation in perpetuity.

7. Within 90 days of the start of construction, the Licensee shall convey title of 307 acres of wetland, as defined in the "Turkey Point Expansion Project, Refined Mitigation Proposal, FPL, April 2004" or as subsequently amended or modified, to the appropriate federal, state, or local resource management agency for conservation or restoration purposes consistent with the goals of ongoing regional restoration plans.

8. Unconsolidated shorelines created as a result of the project shall be stabilized with native vegetation, such as but not limited to mangroves. If seawalls or bulkheads are constructed in or adjacent to tidal waters, they shall include the use of rip-rap or similar wave attenuation devices in their design.

9. Construction of on-site mitigation shall be initiated within 90 days of the beginning of filling of coastal wetlands or tidal waters. Construction of on-site mitigation shall be completed within 90 days of the completion of filling of wetlands except areas to be restored after completion of project construction.

10. Restoration of temporarily filled wetlands shall commence within 60 days of completion of construction on the power block or by January 2010, whichever first occurs.

11. Should upland construction damage or require removal of upland trees, the Licensee shall be required to preserve specimen trees (trunk > 18 in. DBH) and replace upland tree canopy in accordance with the requirements of Article III. Tree Preservation and Protection Sec. 24-60 of the Code of Miami-Dade County. This requirement includes trees along entrance roads and existing landscaped areas, and shall be in addition to establishment of coastal hammocks proposed as part of on-site mitigation.

12. Exotic pest plant species on the development site uplands shall be removed prior to development.

13. Temporary and permanent fill pads shall be graded to slope away from tidal waters and wetlands.

14. Construction of permanent parking areas, walkways, and amenities shall use semi-pervious materials to reduce runoff where feasible and compatible with safety requirements.

15. This Certification does not replace or eliminate the need for appropriate annual operating permits from Miami-Dade County for any existing, new or improved facilities

located at the Turkey Point Power Plant site but not within the area covered by this Certification as delineated in the Site Certification Application. If reclaimed water is used as makeup to the Unit 5 cooling tower and cooling tower blowdown is returned to the South District Wastewater Treatment Plant, FPL shall apply for such permit from DERM as may be required under Chapter 24 of the Code of Miami-Dade County for such disposal pursuant to federal law.

## **XVI. FISH AND WILDLIFE CONSERVATION COMMISSION**

### **Cooling Canal System Crocodile Population Protection**

#### **A. Continuation of Current Monitoring**

The applicant shall continue with current crocodile monitoring efforts including identification surveys, breeding surveys, nest locations monitoring, and captures, and these efforts shall continue throughout the Unit 3 and Unit 4 uprating process.

#### **B. Additional Monitoring**

Specific protocols shall be followed for additional monitoring of crocodiles within the Turkey Point cooling canal system. These protocols based upon work by Mazzotti and Cherkiss shall be followed for the additional monitoring described below.

1. Surveys shall be conducted both pre- and post- Unit 3 and 4 uprate to determine any effects of temperature and salinity changes on crocodiles in the cooling canal system. Surveys shall be initially conducted for a one-year period, after which protocols shall be reviewed for appropriateness. Any changes shall be submitted to the FWC.

2. Additional data shall be collected to determine changes in spatial distribution within the canal system. Data shall be collected monthly from the entire system. Monthly events shall consist of 3 to 4 nights per event, and data collected shall include animal size, GPS location, salinity, and air and water temperatures.

3. Additional data shall be collected to determine changes to growth and survival of crocodiles within the cooling canal system. The entire cooling canal system shall be monitored at least twice a year for five days and four nights per event. Data collected shall include biometric data for each individual hand captured or trapped.

4. If it is determined that there is a negative effect on crocodiles within the cooling canal system due to the Uprate project, the licensee shall monitor the crocodile population outside of the system, particularly in the FPL mitigation areas, to determine if there is no net negative effect. If growth and survival is affected within the system, then using telemetry data on crocodiles moving into and out of the system may show whether or not there is an overall change in the crocodile population at Turkey Point. A summary of monitoring efforts and results shall be included in the Annual Report.

5. If negative effects on crocodile habitat occur, as evidenced by monitoring of crocodile growth, population, and survivorship, FPL shall implement corrective actions in accordance with all applicable federal, state, and local regulatory requirements for the protection of endangered species habitat.



### **C. Annual Report**

FPL shall submit an Annual Report including all data and statistical analyses resulting from the above monitoring requirements to FWC in order for FWC to assess changes in the crocodile population. The report shall be submitted beginning 12 months from initial monitoring, and every 12 months thereafter. Copies of these annual reports shall be provided to the DEP Siting Coordination Office, DERM and the Manager of the Biscayne Bay Aquatic Preserve. FPL shall notify DERM and the Manager of the Biscayne Bay Aquatic Preserve of any meeting with FWCC and DEP to address issues raised in these annual reports. [Chapter 68A – 27, F.A.C.; Miami-Dade CDMP Coastal Management – 1E]

### **XVII. HISTORY**

Unit 5 Certified on 02/07/05; signed by Governor Bush  
Modified on 06/22/06; signed by Siting Administrator Owen  
Modified on 04/24/07; signed by Siting Administrator Halpin  
Units 3 & 4 Certified on 10/29/08; signed by Secretary Sole  
Modified on 1/6/09; signed by Siting Administrator Halpin  
Modified on 06/19/09; signed by Siting Administrator Halpin