

APPENDIX B - PART II

ENVIRONMENTAL PROTECTION PLAN

(NON-RADIOLOGICAL)

TECHNICAL SPECIFICATIONS

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE UNIT NO. 1

OPERATING LICENSE NO. DPR-67

Docket No. 50-335

## **1.0 Objectives of the Environmental Protection Plan**

The Environmental Protection Plan (EPP) is to provide for protection of the local area environment of the St. Lucie Nuclear Plant during construction and operation.

The principle objectives of the EPP are to:

1. Verify that the plant is operated in an environmentally acceptable manner as established by the FES and other NRC environmental impact assessments
2. Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection
3. Keep NRC informed of the environmental effects of facility construction and operation and of actions taken to control those effects

Environmental concerns identified in the Unit 1 FES which relate to water quality matters are to be regulated by way of the licensee's Wastewater permit

## **2.0 Environmental Protection Issues**

In the FES-OL dated June 1973, NRC staff considered the environmental impacts associated with the operation of the St. Lucie Plant Unit 1. Certain environmental issues were identified which required study or license conditions for resolution of environmental concerns and to assure adequate environmental protection. The Unit 1 Appendix B Environmental Technical Specifications accompanying license DPR-67 included discharge restrictions and monitoring

programs to resolve the issues. Prior to issuance of this EPP, ETS requirements related to non-radiological environmental activities have included the following programs:

**2.1 Aquatic monitoring programs to insure:**

- 1. Protection of the local aquatic communities by limiting thermal stress to aquatic organisms**
- 2. Minimization of cooling system organism entrainment and impingement levels**
- 3. Protection of local aquatic biota by minimizing the release of chlorine used to control cooling system biofouling to that necessary to maintain plant efficiency and integrity**
- 4. That the local aquatic environment is protected from potential discharges of heavy metals, discharge of water with unacceptable pH from the plant and insuring that no significant dissolved oxygen alteration due to plant operation occurred**

To insure that the issues identified in items 1, 2, 3 and 4 above have and are being satisfied, extensive chemical, thermal and biotic monitoring has been performed since plant operation began in 1976.

With assumption of aquatic monitoring programs by EPA through the NPDES program, as delineated in NPDES Permit FL0002208 effective January 29,

1982, NRC will rely on EPA for resolution of issues involving the monitoring of water quality and aquatic biota.

On May 1, 1995, the FDEP was granted authority by the U.S. Environmental Protection Agency (EPA) to administer the NPDES permitting programs. Pursuant to the Florida Administrative Code (FAC) 62-620.105(10), the EPA-issued NPDES permit and the State-issued wastewater permit for each facility were to be combined into one document. The resulting single document, Wastewater Permit No. FL0002208, combines the NPDES Permit FL0002208 and the State Wastewater Permit IO56-194945.

**2.2 Terrestrial issues raised have led to programs on sea turtles that:**

- 1. Document the nesting at the site and vicinity; determine effects of the discharge thermal plume on nesting patterns and hatchling migration; and investigate thermal stress on hatching and rearing factors by using turtle eggs from displaced nests**
- 2. Minimize turtle hatchling disorientation by planting a light screen along the beach**

The above programs specifically addressed as conditions in the Unit 1 FES, Operating License and Technical Specifications have been completed and the requirements have been satisfied.

**3.0 Consistency Requirements**

**3.1 Plant Design and Operation**

The licensee may make changes in station design or operation or perform tests or experiments affecting the environment provided such changes, tests or experiments do not involve an unreviewed environmental question. Changes in plant design or operation or performance of tests or experiments which do not affect the environment are not subject to this requirement.

Before engaging in unauthorized construction or operational activities which may affect the environment, the licensee shall perform an environmental evaluation of such activity.\* When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a written evaluation of such activities and obtain prior approval from the NRC.

A proposed change, test or experiment shall be deemed to involve an unreviewed environmental question if it concerns (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the final environmental statement (FES) as modified by staff's testimony to the Atomic Safety and Licensing Board, supplements to the FES, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level (in accordance with 10 CFR Part 51.5(b)(2) or (3) a matter not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

The licensee shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include a written evaluation which provides bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question.

\*Activities are excluded from this requirement if all measurable nonradiological effects are confined to the on-site areas previously disturbed during site preparation and plant construction.

Activities governed by Section 3.3 of this EPP are not subject to the requirements of this section.

**3.2 Reporting related to the Wastewater Permit and State Certification (pursuant to Section 401 of the Clean Water Act)**

- 1. Violations of the Wastewater Permit or the State 401 Certification Conditions shall be reported to the NRC by submittal of copies of the reports required by the Wastewater Permit or State 401 Certification.**
- 2. The licensee shall provide the NRC with a copy of any 316(b) studies and/or related documentation at the same time it is submitted to the permitting agency.**
- 3. Changes and additions to the Wastewater Permit or the State 401 Certification shall be reported to the NRC within 30 days following the date the change is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.**
- 4. The NRC shall be notified of changes to the effective Wastewater Permit proposed by the licensee by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The licensee shall provide the NRC a copy of the application for renewal of the Wastewater Permit at the same time the application is submitted to the permitting agency.**

### **3.3 Changes Required for Compliance with Other Environmental Regulations**

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with or approval from other Federal, State, or local environmental regulations are not subject to the requirements of Section 3.1.

### **4.0 Environmental Conditions**

#### **4.1 Unusual or Important Environmental Events**

Any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to station operation shall be recorded and promptly reported to the NRC Operations Center within 72 hours via Emergency Notification System described in 10 CFR 50.72. In addition, the reporting requirement time frame shall be consistent with 10 CFR 50.72 for environmental protection issues. The initial report shall be followed by a written report as described in Section 5.4.2. No routine monitoring programs are required to implement this condition. Events covered by Section 3.2 of this EPP will be subject to reporting requirements as defined in that section and not subject to these requirements.

The following are examples of unusual or important events: excessive bird impaction events; onsite plant or animal disease outbreaks; mortality (causally related to station operation), or unusual occurrence of any species protected by the Endangered Species Act of 1973; unusual fish kills; increase in nuisance organisms or conditions; and unanticipated or emergency discharge of waste water or chemical substances.

#### **4.2 Terrestrial/Aquatic Issues**

The certifications and permits required under the Clean Water Act provide mechanisms for protecting water quality and indirectly, aquatic biota. The NRC will rely on the decisions made by the State of Florida under the authority of the Clean Water Act and, in the case of sea turtles, decisions made by the NMFS under the authority of the Endangered Species Act, for any requirements pertaining to terrestrial and aquatic monitoring.

In accordance with Section 7(a) of the Endangered Species Act, on May 4, 2001, the NMFS issued a revised Biological Opinion that revised the ITS and modified some of the terms and conditions of the previous Opinion. After discussions among the NRC, NMFS, and FPL and in response to an NRC letter dated June 8, 2001, the NMFS issued a clarification of the issues in the new Biological Opinion and the ITS on October 8, 2001. The revised Biological Opinion concludes that continued operation of the St. Lucie Plant circulating seawater cooling system is not likely to jeopardize the continued existence of the listed species. No critical habitat has been designated for the specified species in the action area; therefore, none will be affected.

FPL shall adhere to the specific requirements within the ITS in the Biological Opinion as clarified by the NMFS and NRC. Changes to the ITS or the terms and conditions must be preceded by consultation between the NRC, as the authorizing agency, and NMFS.

4.2.1 DELETED

4.2.2 DELETED



**INTENTIONALLY DELETED**

**INTENTIONALLY DELETED**

#### **4.2.3 Light Screen to Minimize Turtle Disorientation**

Suitable plants (i.e., native vegetation such as live oak, native figs, wild tamarind, and others) shall be planted and maintained as a light screen along the beach dune line bordering the plant property to minimize turtle disorientation. In addition, FPL owner controlled area lighting shall be shielded so that none of the light is diverted skyward.

#### **4.3 General Exceptions**

The environmental conditions of the EPP Section 4 are contingent upon licensee or its contractors being able to obtain the necessary FDEP endangered species permits to take, handle, and experiment with sea turtles. If licensee is unable to obtain the necessary permits, then NRC shall be notified of alternatives by the licensee.

#### **5.0 Administrative Procedures**

##### **5.1 Review and Audit**

The licensee shall provide for review and audit of compliance with the Environmental Protection Plan. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organization structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

## **5.2 Records Retention**

Records and logs relative to the environmental aspects of plant operation shall be made and retained in a manner convenient for review and inspection. These records and logs shall be made available to NRC on request.

Records of modifications to plant structures, systems and components determined to potentially affect the continued protection of the environment shall be retained for the life of the plant. All other records, data and logs relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

## **5.3 Changes in Environmental Protection Plan**

Request for change in the Environmental Protection Plan shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a license amendment incorporating the appropriate revision to the Environmental Protection Plan.

## **5.4 Plant Reporting Requirements**

### **5.4.1 Routine Reports**

#### **5.4.1.1 Monthly Reports**

Copies of monthly reports covering sea turtle entrapment, capture, rehabilitation, and sea turtle mortalities shall be furnished to NMFS.

#### **5.4.1.2 Annual Environmental Operating Report**

An Annual Environmental Operating Report describing implementation of this EPP for the previous calendar year shall be submitted to the NRC prior to May 1 of each year.

The report shall include summaries and analyses of the results of the environmental protection activities required by Section 4.2 of this Environmental Protection Plan for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous non-radiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends towards irreversible damage to the environment are

observed, the licensee shall provide a detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Environmental Operating Report shall also include:

- (a) A list of EPP noncompliances and the corrective actions taken to remedy them.
- (b) A list of all changes in station design or operation, tests, and experiments made in accordance with Subsection 3.1 which involved a potentially significant unreviewed environmental issue.
- (c) A list of nonroutine reports submitted in accordance with Subsection 5.4.2.
- (d) A discussion of the sea turtle entrapment, capture efforts, turtle mortalities, available information on barrier net inspections and maintenance, and the Taprogge condenser tube cleaning system operation including sponge ball loss at St. Lucie Plant

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

#### 5.4.2 Nonroutine Reports

A written report shall be submitted to the NRC in accordance with 10 CFR 50.4 within 30 days of occurrence of a nonroutine event. The report shall (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact and plant operating characteristics, (b) describe the probable cause of the event, (c) indicate the action taken to correct the reported event, (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems, and (e) indicate the agencies notified and their preliminary responses.

Events reportable under this subsection which also require reports to other Federal, State, or local agencies shall be reported in accordance with those reporting requirements in lieu of the requirements of this subsection. The NRC shall be provided a copy of such reports within 30 days of the date they submitted to the other agency.