



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

November 3, 2016

Mr. Mano Nazar  
President and Chief Nuclear Officer  
Nuclear Division  
Florida Power & Light Co.  
Mail Stop: NT3/JW  
15430 Endeavor Drive  
Jupiter, FL 33478

SUBJECT: ST. LUCIE PLANT, UNIT NOS. 1 AND 2 - ENVIRONMENTAL ASSESSMENT  
AND FINDING OF NO SIGNIFICANT IMPACT RELATED TO THE NATIONAL  
MARINE FISHERIES SERVICE BIOLOGICAL OPINION (CAC NOS. MF7661  
AND MF7662)

Dear Mr. Nazar:

Enclosed is a copy of the Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) related to your license amendment request dated April 29, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16125A253), as supplemented by letter dated August 11, 2016 (ADAMS Accession No. ML16238A190).

The amendments would modify Section 4.2 of the Renewed Facility Operating Licenses' Appendix B (Section 4.2) to reflect the "currently applicable" biological opinion. The National Marine Fisheries Service issued a new biological opinion on March 24, 2016.

M. Nazar

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The EA and FONSI are being forwarded to the Office of the Federal Register for publication.

Sincerely,

A handwritten signature in black ink, appearing to read 'Perry H. Buckberg', is written over the printed name.

Perry H. Buckberg, Senior Project Manager  
Plant Licensing Branch II-2  
Division of Operator Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosure:

Environmental Assessment and Finding of No Significant Impact

cc w/enclosure: Distribution via Listserv

**ENCLOSURE**

**FEDERAL REGISTER NOTICE**

**NUCLEAR REGULATORY COMMISSION**

**[Docket Nos. 50-335 and 50-389; NRC-2016-XXXX]**

**Florida Power and Light Company;**

**St. Lucie Plant, Unit Nos. 1 and 2**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Environmental assessment and finding of no significant impact; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of amendments to Renewed Facility Operating License Nos. DPR-67 and NPF-16, issued on October 2, 2003, and held by Florida Power and Light Company (FPL or the licensee) for the operation of St. Lucie Plant, Unit Nos. 1 and 2 (St. Lucie), located on Hutchinson Island in St. Lucie County, Florida. The proposed amendments would revise the Environmental Protection Plans (Non-Radiological) (EPPs), contained in Appendix B to the St. Lucie renewed facility operating licenses. The NRC is issuing a final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) associated with the proposed license amendments.

**DATES:** The EA and FONSI referenced in this document is available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

**ADDRESSES:** Please refer to Docket ID NRC-2016-XXXX when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2016-XXXX. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the NRC Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced in this notice (if that document is available in ADAMS) is provided the first time that a document is referenced. For the convenience of the reader, the ADAMS accession numbers are also provided in a table in the "Availability of Documents" section of this document.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** Perry Buckberg, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-1383; e-mail: [Perry.Buckberg@nrc.gov](mailto:Perry.Buckberg@nrc.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. Introduction**

The NRC is considering issuance of amendments to Renewed Facility Operating License Nos. DPR-67 and NPF-16 issued to FPL for operation of St. Lucie, located on Hutchinson Island in St. Lucie County, Florida. The licensee submitted its license amendment request by letter dated April 29, 2016 (ADAMS Accession No. ML16125A253), as amended by letter dated August 11, 2016 (ADAMS Accession No. ML16238A190). If approved, the license amendments would revise language in Section 4.2, "Terrestrial/Aquatic Issues," of the St. Lucie EPPs to require FPL to adhere to the specific requirements within the Incidental Take Statement (ITS) of the "currently applicable" biological opinion. The NRC prepared an EA to document its findings related to the proposed license amendments in accordance with § 51.21 of title 10 of the *Code of Federal Regulations* (10 CFR). Based on the results of the EA documented herein, the NRC did not identify any significant environmental impacts associated with the proposed amendments and is, therefore, issuing a FONSI in accordance with 10 CFR 51.32.

### **II. Environmental Assessment**

#### *Plant Site and Environs*

St. Lucie is a two-unit plant with pressurized water reactors and a once-through cooling system that withdraws water from and discharges heated water to the Atlantic Ocean. St. Lucie lies on Hutchinson Island in an unincorporated portion of St. Lucie County, Florida approximately 7 miles (11 kilometers) southeast of Fort Pierce, 4.5 miles (7 kilometers) east of Port St. Lucie, and 8 miles (13 kilometers) north of Stuart. The facility occupies approximately

1,130 acres (457 hectares) on the widest portion of the island. The Atlantic Ocean borders the site to the east, and the Indian River Lagoon, a tidally influenced estuary, lies to the west.

The U.S. Atomic Energy Commission, the NRC's predecessor agency, and the NRC have previously conducted environmental reviews of St. Lucie operations in several documents, which contain more detailed descriptions of the plant site and environs. Those documents include several Final Environmental Statements related to construction and initial operation of St. Lucie; the NRC's May 2003 Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Regarding St. Lucie Units 1 and 2—Final Report (NUREG-1437, Supplement 11) (ADAMS Accession No. ML031360709); and the NRC's June 2012 EA for the St. Lucie Extended Power Uprate (ADAMS Accession No. ML12165A511).

#### *Description of the Proposed Action*

The proposed action would revise language in Section 4.2, "Terrestrial/Aquatic Issues," of the St. Lucie EPPs to require FPL to adhere to the specific requirements within the ITS of the "currently applicable" biological opinion. The proposed amendments would remove language specifically referencing the National Marine Fisheries Service's (NMFS) previous biological opinion, which was issued in 2001. The proposed action would be in accordance with the licensee's application dated April 29, 2016 (ADAMS Accession No. ML16125A253), as amended by letter dated August 11, 2016 (ADAMS Accession No. ML16238A190).

By amending Section 4.2 of the EPPs to clarify that FPL must adhere to the ITS of the "currently applicable" biological opinion, the proposed action would require FPL's compliance with the NMFS' March 24, 2016, biological opinion (ADAMS Accession No. ML16084A616). This biological opinion applies to smalltooth sawfish (*Pristis pectinata*) and five species of sea turtles (*Caretta carreta*, *Chelonia mydas*, *Lepidochelys kempii*, *Eretmochelys imbricata*, and *Dermochelys coriacea*), and concludes that the continued operation of St. Lucie is not likely to

jeopardize the continued existence of these species or destroy or adversely modify the designated critical habitat of the loggerhead Northwest Atlantic distinct population segment. The ITS exempts the incidental take of these species from the prohibitions of Section 9 of the Endangered Species Act of 1973, as amended, provided that the specified Reasonable and Prudent Measures (RPMs) are implemented. The RPMs are:

(1) Avoid and minimize entrainment into the St. Lucie intake canal

(2) Avoid and minimize injurious or lethal take from entrainment into, entrapment in, capture in, and release from the St. Lucie intake canal or from impingement at intake wells.

In order to implement the RPMs, the biological opinion prescribes a number of Terms and Conditions (T&Cs). The T&Cs require FPL to design, test, construct, and implement excluder devices for the St. Lucie intake pipe velocity caps that will minimize the number of nesting or egg-bearing female sea turtles that enter the intake pipes. Following testing, in-water construction of the excluder devices must begin no later than the first half of 2018. The licensee must also develop monitoring and maintenance plans to inspect routinely and remove debris and biofouling organisms from the excluder devices and the intake pipes and to inspect, repair, and replace, as necessary, the 8-inch mesh barrier net in the intake canal.

The T&Cs specify how FPL personnel should capture and relocate smalltooth sawfish and sea turtles that enter the intake canal. Additionally, the T&Cs specify various monitoring and reporting requirements, including how FPL should record the number and condition of turtles captured in the intake canal; the periodicity at which FPL personnel should inspect the banks of the intake canal for turtle tracks or signs of nesting; how FPL personnel should monitor the release site for possible delayed lethal impacts to captured smalltooth sawfish; how FPL must notify NMFS of lethal smalltooth sawfish or sea turtle takes; and the information that FPL should include in monthly and annual reports. The T&Cs also require FPL to continue to participate in the Florida Sea Turtle Stranding and Salvage Network; to continue to conduct the



ongoing sea turtle nesting program and public service turtle walks; and to consult with the Florida Fish and Wildlife Conservation Commission (FWC) in accordance with FPL's FWC Marine Turtle Permit. Finally, the T&Cs require FPL contracted biologists to receive training on smalltooth sawfish and sea turtle handling.

Notably, because the proposed amendments would require FPL's compliance with the "currently applicable" biological opinion, if NMFS were to issue a new biological opinion in the future, the proposed amendments would require FPL to adhere to the specific requirements in the ITS of that new biological opinion, and FPL would no longer be required to adhere to the March 24, 2016, biological opinion upon issuance of a new biological opinion.

#### *Need for the Proposed Action*

The proposed action is needed to reflect the new biological opinion issued by NMFS on March 24, 2016, and to require FPL's compliance with the ITS and related RPMs and T&Cs contained therein. The proposed action is administrative in nature.

#### *Environmental Impacts of the Proposed Action*

The NRC has completed its evaluation of the proposed action and concludes that the proposed changes are administrative in nature, would have no direct effects on plant equipment or plant operation, and would not involve any changes to the design bases for St. Lucie.

With regard to potential radiological impacts, the proposed action would not increase the probability or consequences of accidents, would not change the types or increase the amount of effluent that may be released offsite, and would result in no increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, because the proposed action is administrative in nature, it would not have any direct impacts on land, air, or water resources, including impacts to biota. In addition, the NRC staff identified no socioeconomic or environmental justice impacts associated with the proposed action. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

An indirect effect of the proposed action is that FPL will design, test, construct, and implement excluder devices for the St. Lucie intake pipe velocity caps to minimize the number of nesting or egg-bearing female sea turtles that enter the intake pipes in accordance with the March 24, 2016, biological opinion. The biological opinion stipulates that in-water construction of the excluder devices must begin no later than the first half of 2018. The excluder devices will be prefabricated offsite and will only require limited construction equipment for the cleaning and attachment of the excluder devices to the velocity caps. The excluder devices will be installed within the boundaries of the existing concrete velocity cap structures located approximately 1,500 feet (460 meters) offshore. The velocity caps and associated functions are not safety related and would, therefore, not require any physical changes to systems, structures, or components intended for the prevention of accidents. The licensee may need to perform some localized cleaning of marine growth on the concrete surfaces of the velocity caps prior to attaching the excluder devices to the velocity caps. During such cleaning, there is potential for minor water turbidity, which FPL would monitor in accordance with the biological opinion, FWC Marine Turtle Permit, Army Corps of Engineers National Wide Permit, and Florida Department of Environmental Protection Environmental Source Permit, as applicable. Installation would not require dredging, sediment disturbance, or construction on the ocean floor, and would also not result in any land disturbances. The NRC staff concludes that the indirect effects of installation of the turtle excluder devices will not result in significant environmental impacts to the radiological or non-radiological environment.

Based on the foregoing analysis, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

#### *Environmental Impacts of the Alternatives to the Proposed Action*

As an alternative to the proposed action, the NRC staff considered denial of the proposed license amendments (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental conditions or impacts. Accordingly, the environmental impacts of the proposed action and the no-action alternative are similar.

#### *Alternative Use of Resources*

The proposed action does not involve the use of any different resources than those previously considered in NUREG-1437, Supplement 11, prepared for the license renewal of St. Lucie.

#### *Agencies and Persons Consulted*

The NRC did not enter into consultation with any other Federal Agency or with the State of Florida regarding the environmental impact of the proposed action. However, on August 29, 2016, the NRC notified the Florida state official, Cynthia Becker, Bureau of Radiation Control, of the proposed amendments. The state official had no comments.

### **III. Finding of No Significant Impact**

The NRC is considering issuing amendments for Renewed Facility Operating License Nos. DPR-67 and NPF-16 issued to FPL for operation of St. Lucie. The proposed amendments would revise the St. Lucie EPPs to require FPL to adhere to the specific requirements within the ITS of the “currently applicable” biological opinion. On the basis of the EA included in Section II

of this document and incorporated by reference into this finding, the NRC concludes that the proposed action would not have significant effects on the quality of the human environment. The NRC's evaluation considered information provided in the licensee's application, as supplemented, as well as the NRC's independent review of other relevant environmental documents. Section IV of this document lists the environmental documents related to the proposed action and includes information on the availability of these documents. Based on its findings, the NRC has determined not to prepare an environmental impact statement for the proposed action.

#### **IV. Availability of Documents**

The documents identified in the following table are available to interested persons through ADAMS.

<b>DOCUMENT</b>	<b>ADAMS ACCESSION NO.</b>
Florida Power and Light Company. License Amendment Request to Update Appendix B to the Renewed Facility Operating Licenses to Incorporate the 2016 Biological Opinion. Dated April 29, 2016.	ML16125A253
Florida Power and Light Company. Response to Request for Additional Information Regarding License Amendment Request for Biological Opinion License Changes. Dated August 11, 2016.	ML16238A190
National Marine Fisheries Service. Biological Opinion for Continued Operation of St. Lucie Nuclear Power Plant, Units 1 and 2 in St. Lucie County, Florida. Dated March 24, 2016.	ML16084A616

U.S. Nuclear Regulatory Commission. Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Regarding St. Lucie Units 1 and 2—Final Report (NUREG-1437, Supplement 11). Dated May 2003.	ML031360709
U.S. Nuclear Regulatory Commission. St. Lucie Plant, Units 1 and 2—Environmental Assessment and Finding of No Significant Impact Related to the Proposed Extended Power Uprate. Dated June 25, 2012.	ML12165A511

Dated at Rockville, Maryland, this 3<sup>rd</sup> day of November 2016.

FOR THE NUCLEAR REGULATORY COMMISSION



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