

**From:** [Grange, Briana](#)  
**To:** [Audra Livergood](#)  
**Cc:** [Eaton, Kristin](#); [Eldridge, Jodie](#); [Elliott, Robert](#); [Jennifer Moore \(jennifer.moore@noaa.gov\)](#)  
**Subject:** NRC Response to NMFS's Additional Information Requests to support St. Lucie ESA consultation  
**Date:** Wednesday, January 22, 2020 10:11:00 AM  
**Attachments:** [2020-01-22\\_NRC Response to NMFS 01-10-20 Request for Additional Information.pdf](#)

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Audra,

With this email, I am transmitting to you the NRC's response to your January 10, 2020, request for additional information, as amended in your email dated January 17, 2020. This response concerns the NRC's request to reinstate Endangered Species Act Section 7 consultation for the St. Lucie Plant, Unit Nos. 1 and 2. The NRC previously transmitted to you an interim response on January 14, 2020. This email and its attachment serve as the NRC's final response.

Thank you,

Briana

**Briana A. Grange**

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

St. Lucie Plant, Units 1 and 2

Endangered Species Act (ESA) Section 7 Consultation

Responses to the National Marine Fisheries Service's (NMFS) January 10, 2020, Requests for Additional Information (RAIs), as amended on January 17, 2020

January 22, 2020

Responses to Requests for Additional Information

1. **At this time, in lieu of a final 2019 annual environmental operating report, we reiterate our request and ask the NRC/FPL to compile the information from their 2019 monthly reports into one 2019 annual draft report that supplements information provided in the Biological Assessment. We expect the NRC to provide the draft report to NMFS by January 31, 2020 and the final report to NMFS by March 31, 2020. Please submit both reports by the requested due dates via email (as a pdf attachment) to [Audra.Livergood@noaa.gov](mailto:Audra.Livergood@noaa.gov). Our headquarters office located in Silver Spring, MD and referenced in Term and Condition 16 (of RPM 1) in the 2016 BO is no longer overseeing the Section 7 consultation; thus, it would be prudent to send these reports to Ms. Livergood's attention via the email address provided herein. Until we receive the draft report, we will not have sufficient information to draft a Biological Opinion.**

*On January 17, 2020, the NMFS amended the above request as follows:*

**NMFS has determined that FPL's spreadsheet entitled, "Copy of FPL St. Lucie Capture Summary 2019," provided via email to NMFS on January 16, 2020, will partially satisfy our information needs. In addition, we request that the information provided in the 2019 Capture Summary be supplemented with a spreadsheet that further breaks down the 2019 turtle takes by size. We have attached a spreadsheet format with headers that shows how we would like to see this information. We request that the NRC/FPL populate the attached spreadsheet and provide the populated spreadsheet to [Audra.Livergood@noaa.gov](mailto:Audra.Livergood@noaa.gov) by January 31, 2020.**

Florida Power & Light Company has prepared the requested breakdown of 2019 sea turtle takes by size class. The data table is attached to this response.

2. **In the NRC's 12/18/19 response, the NRC states that FPL has developed a monitoring and maintenance plan, in accordance with Term and Condition 2 of RPM 2. NMFS notes that we provided comments on the draft plan on 3/1/17. However, we did not receive a response to our comments nor did we receive the final monitoring and maintenance plan. Please submit the Monitoring and Maintenance Plan to [Audra.Livergood@noaa.gov](mailto:Audra.Livergood@noaa.gov) by January 31, 2020.**

The NRC has attached a copy of the plan to this response.

Please also note that the NRC has previously submitted this plan to NMFS. The plan was attached to the NRC's May 22, 2019, response to additional information requests ([ML19142A139](#)). The plan

was also incorporated by hyperlink as Reference 5 on page 2 of the NRC's December 18, 2019, response to additional information requests ([ML19350B348](#)).

Docket Nos. 50-335 and 50-389  
License Nos. DPR-67 and NPF-16

ADAMS Accession No.: M ML20022A062

*The NRC's licensee, Florida Power & Light Company, was provided an opportunity to review and comment on this response prior to its finalization.*

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St. Lucie Plant, Units 1 and 2  
2019 Sea Turtle Captures by Size Class

Loggerheads ( <i>Caretta caretta</i> )		Green turtles ( <i>Chelonia mydas</i> )		Hawksbills ( <i>Eretmochelys imbricata</i> )		Leatherbacks ( <i>Dermochelys coriacea</i> )		Kemp's ridley ( <i>Lepidochelys kempii</i> )		Olive ridley ( <i>Lepidochelys olivacea</i> )		Overall Totals	
2019 <61 cm SMCW	2019 >61 cm SMCW	2019 <61 cm SMCW	2019 >61 cm SMCW	2019 <61 cm SMCW	2019 >61 cm SMCW	2019 <61 cm SMCW	2019 >61 cm SMCW	2019 <61 cm SMCW	2019 >61 cm SMCW	2019 <61 cm SMCW	2019 >61 cm SMCW	2019 <61 cm SMCW	2019 >61 cm SMCW
145	89	237	23	0	0	0	0	13	0	1	0	396	112
234		260		0		0		13		1		508	

# **St. Lucie Nuclear Power Plant (SLNPP) Monitoring and Maintenance Plan to Inspect and Remove Debris and Biofouling Organisms from Ocean Intake System**

## **Introduction**

The portion of the ocean intake system subject to this monitoring and maintenance plan are the three velocity cap structures, three ocean intake pipes and the two headwall structures where the pipes enter the canal. The monitoring is intended to identify adverse trends in the number of fresh scrapes on turtles. Based on this monitoring, corrective actions shall be taken to identify and address the potential cause of the adverse trend in fresh scrapes on turtles.

## **Biological Opinion's Action Threshold**

FPL is required to record the number of captured turtles with fresh causal scrapes and categorize them as minor, moderate or severe. FPL shall start the process for inspecting the Ocean Intake System, as soon as possible, if numbers 1 or 2 below are met. A milestone schedule for inspection of the Ocean Intake System that considers equipment/vendor availability and plant operating conditions shall be provided to NMFS, within one month of exceeding action threshold:

1. The number of turtles with severe fresh scrapes reaches 0.5 percent of the number of captured turtles during two consecutive years or;
2. The number of turtles with moderate or severe fresh scrapes reaches 15 percent of the number captured during two consecutive years.

## **Inspection Discussion**

Due to flow velocities in the ocean intake pipe, the pipes are required to be isolated prior to performing an inspection of the interior of the pipes. Isolation of a single pipe requires taking at least one of the Nuclear Reactors off line. The two Nuclear Reactors are on alternating 18 month refueling cycles that results in one unit being shutdown, approximately every 9 months.

FPL will schedule the commencement of the inspection and associated corrective actions at the next available outage (or outages) of sufficient duration, provided there is sufficient time to safely plan for the inspection and mobilize the required contractors and equipment.

Because of the amount of equipment, safety concerns, weather/sea state issues, specialized inspection contractors, scheduling and budget, it is recommended that the process for identification of the potential cause of the turtle injuries be started early in the process of the identification of a potential negative trend. As a minimum, within one month of reaching a regulatory required action threshold, FPL shall submit and co-ordinate a schedule for inspection of the ocean intake system with the NRC and NMFS.

FPL shall submit report(s) and video on the condition of the pipe as it was found and condition of the pipe after any corrective actions, if required, were taken. All reports and supporting documentation on the inspection and inspection results will be submitted to NRC and NMFS for review, as required.

## **Maintenance/Corrective Actions**

Based on results of the pipe inspection, FPL will consult with regulatory agencies to determine appropriate corrective actions. Based on past operating experience, numerous conditions could result in an increase in negative trend in turtle injuries:

1. Structural failure of pipe or velocity caps
2. Wide spread build-up of marine growth
3. Localized marine growth at entrance to pipe or transition area
4. Miscellaneous trash or debris that enters the pipe

The cause of the adverse trend will impact the timing of the implementation of the corrective action. Items such as the removal of localized marine growth or trash can most likely be addressed during the same outage as the inspection. Repair of structural failures, modifications to the pipe, or removal of wide spread marine growth may take multiple outages to implement and complete.

Based on inspection findings, maintenance or inspection requirements shall be reviewed and coordinated with agencies, as required.

## **Inspection Implementation Requirements:**

1. Within 48 hours of the quantity and severity of scrapes exceeding a Biological Opinion (BO) action threshold, a Condition Report shall be entered into FPL corrective action program.
2. The Condition Report disposition shall document apparent cause, required inspections, and corrective actions, as required, with responsible department and due dates.
3. If corrective actions require the inspection of the interior of the Ocean Intake Piping, the inspection shall be scheduled for the next available outage of sufficient duration, provided there is sufficient time to safely prepare and schedule the inspection.
  - a. A milestone schedule for inspection shall be submitted to NMFS for review and comment within one month of exceeding a *regulatory required action threshold*.
  - b. Based on inspection results, corrective actions shall be scheduled as soon as they can be safely prepared and scheduled.
4. Proposed schedule and maintenance/corrective action(s) to address a *regulatory required action threshold* shall be coordinated with NMFS.

## **References:**

1. National Marine Fisheries Service (NMFS) biological opinion pursuant to section 7(a)(2) and the conservation review pursuant to section 7(a)(1) of the Endangered Species Act, as amended (ESA; 16 U.S.C. 1536(a)(2)), Dated March 24, 2016.
2. Engineering Evaluation PSL-ENG-SECS-06-040, Revision 1, Removal of Circulating Water Ocean Intake and Discharge System Piping from Service for Inspection Repair and/or Maintenance.