Mendiola, Doris

Subject: FW: National Park Service Comments on Docket ID NRC–2011–0259 Turkey Point Uprate
Attachments: Turkey Point.pdf

Importance: High

----- Original Message -----
From: Anita_Barnett@nps.gov <Anita_Barnett@nps.gov>
To: Bladey, Cindy; Gallagher, Carol
Sent: Wed Jan 18 11:31:20 2012
Subject: National Park Service Comments on Docket ID NRC–2011–0259 Turkey Point Uprate

(See attached file: Turkey Point.pdf)

Attached above are the National Park Service Comments on Docket ID NRC–2011–0259. If you have any questions please call me at 404-507-5706. Thank you for the opportunity to provide comments.

Anita Barnett
Environmental Protection Specialist
Planning and Compliance Division
Southeast Regional Office
404-507-5706

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SUNSI Review Complete
Template = ADM-013

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Add = B. Clayton (BAC2)
J. Poyle (JCP4)

United States Department of the Interior

NATIONAL PARK SERVICE
Southeast Regional Office
Atlanta Federal Center
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Atlanta, Georgia 30303

IN REPLY REFER TO:
SER-PC

JAN 12 2012

Mr. Mano Nazar
Executive Vice President and
Chief Nuclear Officer
Florida Power and Light Company
P.O. Box 14000
Juno Beach, Florida 33408-0420

Jason C. Paige
Plant Licensing Branch 11-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington D.C. 20555-0001

Dear Mr. Nazar and Mr. Paige:

The National Park Service (NPS) appreciates the opportunity to review the "Turkey Point Units 3 and 4 Draft Environmental Assessment (DEA) and Finding of No Significant Impact (FONSI) Related to the Proposed Extended Power Uprate (TAC NOS. ME4907 and ME4908)" by the Nuclear Regulatory Commission (NRC). In accordance with 40 CFR Part 1503, the NPS offers a number of comments on the DEA for your consideration.

Biscayne National Park (BISC), a unit of the National Park Service is contiguous with the Florida Power and Light (FPL) Turkey Point Nuclear Power Plant site Units 3 and 4. Based on our review, the DEA is insufficient to determine the level of impacts to the resources of BISC from the proposed action. There is substantial literature indicating that the existing conditions occurring at the plant associated with operations of Units 3 and 4 may currently be impacting park resources. The NPS is concerned that the proposed changes to operations resulting from the Uprate could cause further adverse impacts to park resources. The NEPA analysis needs to evaluate the effects on NPS resources in BISC, and the contribution of the predicted temperature increase on the movement of the high salinity groundwater plume from the cooling canals as it moves to the east under the Bay and to the west toward well fields and other protected areas.

The analysis presented in the DEA is incomplete and inadequate and as such, precludes meaningful conclusions, and the proposal could result in adverse effects to park resources. Additionally, the proposed actions conflict with Everglades' restoration objectives for this area. Many of the assumptions and assertions made in this document need better explanation along with the data used to support a number of substantive conclusions. In the absence of detailed analysis it is difficult to determine that a FONSI would be appropriate. Therefore, the NPS requests that the NRC prepare and circulate a revised environmental assessment or an environmental impact statement according to CEQ regulations (40 CFR Part 1502).

In addition to the general comments here provided, a list of specific comments on the document is enclosed. We request that the next analysis address these concerns. If you have any questions concerning these comments, please contact Mark Lewis, Superintendent, Biscayne National Park, at (305) 230-1144 ext. 024 or mark_lewis@nps.gov.

Thank you for the opportunity to provide comments.

Sincerely,

Gordon Wissinger
Acting Regional Director
Southeast Region

Enclosure

cc:

- Mark Lewis, Superintendent, Biscayne National Park, 9700 S.W. 328 Street, Homestead, FL 33033
- Dan Kimball, Superintendent, Everglades National Park, 40001 State Road 9336, Homestead, FL 33034
- Cindy Mulky, Program Administrator, Florida Department of Environmental Protection Siting Coordination Office (SCO), 3900 Commonwealth Blvd. MS 48, Tallahassee, FL 32399
- Barbara Linkiewicz, Director, Environmental Licensing Florida Power and Light, Inc., 700 Universe Blvd., Juno Beach FL 33408
- Carlos A. Gimenez, Mayor, Miami-Dade County, 111NW 1st St. #2910, Miami, FL 33128 (305) 375-5071
- James Murley, Executive Director, South Florida Regional Planning Council, 3440 Hollywood Blvd., Suite 140, Hollywood, FL 33021 (954) 985-4416
- Melisa Meeker; Executive Director, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33406 (561) 686-8800
- Shannon Estenoz, Director, Everglades Restoration Initiatives, Office of Everglades Restoration Initiatives, South Florida Ecosystem Restoration Task Force, c/o Florida International University, 11200 SW 8th Street, OE 165, Miami, FL 33199
- Larry Williams, Field Supervisor, USFWS South Florida Ecological Services Office, 1339 20th St., Vero Beach, FL 32960 (772) 562-3909

Specific Comments on the Turkey Point Units 3 & 4 Draft EA:

1) Page 1 states "The NRC did not identify any significant environmental impacts associated with the proposed action based on its evaluation of the information provided in the licensee's application and other available information." What other available information was reviewed? Please provide a summary of these information sources.

2) In the Water Use Impacts section beginning on page 7, the document states that there are no significant fresh water bodies outside of the site and states that the most significant surface water body on the site is the CCS. Contiguous to the Plant site, there are extensive freshwater wetlands that include a mitigation bank for FPL, protected freshwater and saltwater wetlands, and wetlands identified as environmentally sensitive and slated for acquisition. There is extensive information available from the data set collected as part of the State and county conditions related to the Uprate. This data indicates the water from these wetlands and other surface water bodies is being drawn into the cooling canals and in some cases may be contaminated in turn by the water from the cooling canals. We do not find an analysis or review of these potential impacts which are evaluated relative to the effects of the Uprate. The NPS recommends that NRC include an analysis of the potential effects of the proposed uprate on these water bodies as necessary to analyze the potential effects on park resources, which depend upon freshwater flow from nearby wetlands.

3) On page 8, the document says that the cooling canal system ranges between 40 and 650 parts per thousand (ppt). It is our understanding that the cooling canal system is approximately 60 practical salinity units or ppt. If there are areas where the cooling canal system is 650 parts per thousand, please provide this data.

4) Regarding the statement on page 10: "Approving the proposed EPU license amendment is not expected to cause significant impacts greater than current operation because the monitoring plan will provide data for FPL and state agencies to assess the effectiveness of current environmental controls and additional limits and controls could be imposed if the impacts are larger than expected." What additional limits and controls would be imposed if the impacts were larger than expected? This should be included in a revised document.

5) On page 10, there is an extensive description of the Floridan (not Floridian as stated in document) Aquifer system. What are the uses of the Floridan Aquifer system by the Plant, and why is it important to this discussion?

6) On page 11, the aquifer under the cooling canals and the Plant is referred to as the Floridian Aquifer System. The aquifer under the cooling canals is actually the Biscayne Aquifer, which is an unconfined surface water recharge aquifer system. It is a sole source drinking water aquifer with drinking water wellfields in the region contiguous with the area affected by the plume under the plant. Although the area adjacent and under the plant is classified as a G-III aquifer, the same aquifer further to the west in the same area is used for drinking water by the Florida Keys Aqueduct Authority and Miami-Dade County for the Cities of Florida City and Homestead. This same aquifer is a critically important freshwater resource for the wetlands and

waters of BISC.

7) Mitigation is mentioned on pages 11 and 12 to: "1) offset impacts of the proposed EPU necessary to comply with State and local water quality standards, 2) operational changes in the cooling system to reduce impacts, and 3) other measure to abate impacts specified a revised Condition of Certification approved by the State of Florida Department of Environmental Protection (FDEP) after consultation with South Florida Water Management District (SFWMD) and Miami-Dade County;" however, the mitigation measures are not identified or defined in the EA and not mentioned at all in the Draft FONSI. What are the impacts and severities of the proposed EPU that are expected to need mitigation? What specific mitigation measures are proposed?

8) On page 12, the EA states that "Biscayne Bay and Card Sound would be unaffected by the proposed EPU because FPL does not withdraw or discharge to any natural water body." What data was used to make this conclusion and were the results of the Monitoring Plan sampling done by FPL included in this analysis?

9) Page 14 states: "Because the cooling canal system is unconnected to Biscayne Bay, Card Sound, or any natural water body, changes to the conditions within the cooling canal system would not affect any aquatic species population in the natural aquatic habitats." The NPS does not agree that the cooling system is not connected to a natural water body, or that the changes to the conditions within the cooling canal system would not have an effect on aquatic species. There is ample evidence that the cooling canal system is connected to the Biscayne Aquifer. Furthermore, there is substantial literature indicating that the extremely transmissive nature of the Biscayne Aquifer as well as the substrate and geology at this location directly affect the movement of water in both groundwater and surface water, especially during withdrawals and discharges. Infiltration and exchange with local groundwater, saline water, and Biscayne Bay result in exchange with surface waters since the Biscayne Aquifer is an unconfined aquifer. Was the exchange between the Biscayne Aquifer and the Bay considered due to this interconnection of both groundwater and surface water? The proposed DEA does not appear to provide sufficient information to make a decision regarding surface water impacts to Biscayne Bay/BISC resources resulting from on-site cooling and waste water disposal to the cooling canals and subsequent movement of this water into the groundwater or surface water. What data was used to make the assertion of Finding of No Significant Impact?

10) On page 17, the DEA concludes no significant impact on historic and archeological resources in the vicinity of Units 3 and 4 and the switchyard, but admits no archeological surveys have taken place. A search for previously recorded archeological or historical sites is insufficient to make this determination. In addition, consultation with the State Historic Preservation Office is necessary prior to concluding no impact to historic or archeological resources. Field testing by a qualified archeologist is recommended to determine if historic or archeological sites are present at the site.

11) In the Non-Radiological Cumulative impacts section beginning on page 21, were the actual effects of the Uprate temperature rise, water use, altered water movement, and associated construction traffic effects considered against the current condition? Where is the data for this

evaluation? What analysis was performed, and what data was used, to support the assertion that the proposed COL for new Units 6 and 7 will have no impact on the existing condition or the conditions derived from the Uprate?

12) Page 23 states "Impacts to water resources for PTN Units 3 and 4 and PTN Units 6 and 7 would occur separately, and any potential cumulative impacts would not be significantly greater than current conditions." Where is the analysis and data to support this conclusion?

13) Please provide threshold impact definitions, including the definition of significant impact for each impact topic, as well as the data and analysis used to arrive at these conclusions. Specifically, on pages 24 and 25, Table 1 contains the summary of Non-radiological Environmental Impacts which shows that there are no significant impacts or there are no significant impacts greater than existing conditions.

14) What study or analysis was used to support the following assertion made on page 33: "However, if the Extended Power Uprate (EPU) were not approved for operation of the Turkey Point (PTN) Units 3 and 4, other agencies and electric power organization may be required to pursue other means, such as fossil fuel or alternative fuel power generation, to provide electric generation capacity to offset future demand. Construction and operation for such a fossil-fueled or alternative fuel plant could result in impacts in air quality, land use, and waste management greater than those identified for the proposed EPU for PTN Units 3 and 4." Additionally, we seek to understand how this assertion was used to determine the severity of impacts of the proposed uprate.

15) Scoping is not mentioned in the DEA. Were other alternatives considered or proposed during scoping? What comments were received from public and agency scoping, and how were they used to shape the alternatives?

16) Existing conditions are not described in the DEA. There is a section titled "Plant Site and Environs," however it does not address the current or existing conditions of air quality, surface water, ground water, aquatic resources, terrestrial resources, threatened and endangered species, wetlands, etc.

17) There are two alternatives, the proposed action and a no action alternative. However, the impact topics analyzed are not the same for both alternatives. The affected environment chapter of the EA needs to describe the existing environment potentially affected by the project alternatives, or that would affect the alternatives if they were implemented. Consistent with CEQ regulations (40 CFR 1502.15), this chapter needs to present a concise and focused description of the environment for the project area. The Information presented needs to focus on sensitive or controversial resources and/or those resources anticipated to incur project-related impacts. Detailed background or support material should be incorporated by reference or placed in an appendix.

18) There is no description of purpose and need beyond a brief restatement of language from the application found on page 4. Please describe the process the NRC used to evaluate the accuracy of these statements or other alternatives that may have the same outcome.

19) The EA states that FPL estimates an average of 1000 construction workers will be required per day to implement the Uprate and two separate refueling outages. Heavy equipment must be brought to the site to accomplish the Uprate. Where is the analysis to evaluate the impacts of these additional trips with heavy equipment as well as the trips to remove old equipment? Where is the analysis to evaluate the increased traffic impact on local threatened and endangered species (e.g., Florida panther *Felis concolor coryi* which is known to inhabit the area) or species of special concern? What mitigations are proposed to minimize the increased traffic impact on protected species?

20) The DEA does not contain adequate information to understand the impacts of the proposed project on federally listed threatened and endangered species. For example, the displacement of crocodile habitat and loss of use of habitat are important issues directly and potentially adversely affected by the Uprate temperature increase. This area is designated Federal Critical Habitat for this endangered species. Were these issues analyzed and the resulting impact on crocodiles from temperature increases quantified in your analysis and that of USFWS?

21) The EA references a biological assessment that was submitted to the USFWS as part of the Endangered Species Act Section 7 Consultation process; however, that analysis is not included or adequately summarized in the EA. We request that the biological assessment be appended in its entirety to the DEA, and that the analysis be summarized in the main body of the EA, including documentation from USFWS concluding no adverse effects to these species.

Furthermore, the DEA omits any discussion of project impacts to Florida state-listed threatened or species of special concern. NPS Management Policies direct us to manage state listed species in a manner similar to our treatment of federally listed species. Since many species will cross from the project area into Biscayne National Park, it is imperative for us to understand the potential project impacts to state-listed species. We request that a list of state-listed species be included in the EA, along with an analysis of potential project impacts to those species. For example, would the construction of the expanded electric switchyard, as defined on page 6, reduce nesting habitat for Least Terns (*Sterna antillarum*)? Would the increase in temperature in the closed-cycle cooling canal system (CCS) reduce prey availability for wading birds or Least Terns?

22) Where is the analysis to verify the applicant's assertion that the proposed plant changes will result in a 2.00F to 2.50F change in outflow temperature? Are these temperature increases per reactor, and are they cumulative or additive?

23) The area of wetlands contiguous to the PTN Plant site are slated to be included in portions of the Biscayne Bay Coastal Wetlands (BBCW) project for the Comprehensive Everglades Restoration Plan (CERP), a State and Federal partnership for the restoration of south Florida's greater Everglades ecosystem. These wetlands are to experience rehydration under the CERP. This rehydration is critically important to the park's estuarine resources. The possibility of conflict with this major federal action needs to be considered in this analysis.

24) Uprate monitoring required by the State of Florida indicates freshwater may be a

component of the inflow water to the CCS that is currently not accounted for in the State water permitting process. Has this data been analyzed under the NRC NEPA analysis? What other data was analyzed to evaluate this issue? The discussion of the operations of the interceptor ditch indicates that the interceptor ditch prevents the westward movement of saline water in the aquifer as it was designed to do. This is an important assertion that may be counter to the data collected as part of the Uprate monitoring. What analysis and what data sets were used to derive this conclusion? How will the current movement of the hyper saline groundwater plume to the west be affected by the proposed uprate, and how will this westward movement affect local wetlands and drinking water supplies? Also, please provide the data used and explain the analysis that was done to conclude that a temperature increase of 2.0 to 2.5F and the resulting evaporation would not increase the flow of water down into the aquifer.

25) Was NPDES data used to determine whether the water leaving the cooling canals meets the Federal and State water quality standards and permit criteria? What analysis or hydrologic modeling was performed to determine that the water will continue to meet permit requirements of the NPDES with the Uprate? What data was used for this analysis?

26) The data collected thus far as a result of monitoring related to the Uprate seems to indicate that there are extensive groundwater effects occurring as a result of the operations of Units 3 and 4. Please provide an analysis of cumulative effects of the current operations and the proposed uprate. What other data was considered to come to the conclusion that there are no analyses needed to evaluate the impacts of the Uprate on existing operations of the current Units 1, 2, 3, 4 and 5?

27) Background Materials: It appears, upon review of the DEA and FONSI, that perhaps there was material that the NRC did not use during preparation of the EA. These materials include: 1) The State of Florida Department of Environmental Protection Conditions of Certification for the PTN Units 3 and 4 Uprate PA 03-45D dated 06-19-2009; 2) Final PTN Monitoring Plan; 3) a web link to the PTN Point Plant First Annual Monitoring Report Units 3 and 4 Uprate Project; 4) a letter from the Florida Fish and Wildlife Conservation Commission to Mike Halpin Siting Coordinator FDEP with an attached report from the University of Florida on effects of increased temperature of the cooling canals on crocodiles. Was this information used in the preparation of the DEA?

28) The Final PTN Monitoring Plan approved by the State of Florida to determine the current background conditions of the site and the potential for the proposed changes to impact the area including BISC as a result of the Uprate has generated a series of reports and analyses on the Uprate, the effects of the cooling canals on surrounding areas and groundwater, the operations and effectiveness of the interceptor ditch, and the location and movement of the high salinity plume resulting from the cooling canal water. In addition there is extensive data available to evaluate the changes proposed as part of the Uprate. Was this existing data collected and analyzed by the NRC as part of this process?