



United States Department of the Interior



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NATIONAL PARK SERVICE
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JUN 22 2018

Mr. George Wilson
Director of the Division of Materials and License Renewal
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Mail Stop O11-E1
Rockville, Maryland 20852

Dear Mr. Wilson:

The National Park Service (NPS) has reviewed the Nuclear Regulatory Commission (NRC) Federal Register notice (Docket Nos. 50-250 and 50-251; NRC-2018-0101) on its intent to prepare an environmental impact statement (EIS) to evaluate the environmental impacts for the subsequent operating license renewal for Florida Power & Light's (FPL) Turkey Point Nuclear Plant Units 3 and 4. FPL proposes to extend operation of the two units from 60 to 80 years. Unit 3 would be extended from 2032 to 2052 and Unit 4 from 2033 to 2053. The Turkey Point power plant facility is located adjacent to Biscayne National Park (NP) and two miles south of the park's visitor center and headquarters.

The NPS respectfully requests to be a cooperating agency in the development of the NRC's EIS to evaluate the environmental impacts for the subsequent operating license renewal for Turkey Point Nuclear Plant Units 3 and 4. Due to its location adjacent to Turkey Point Nuclear Power Plant Units 3 and 4 and for being the only NPS site located adjacent to a nuclear power plant, the NPS has special expertise regarding the environment in and around Biscayne NP and can provide data and information to the NRC that will assist in the development of the EIS. Becoming a cooperating agency would not preclude independent review and comment responsibilities under Section 102(2)(C) of the National Environmental Policy Act, or our responsibilities for any other environmental consultations required by law. In addition to our request to be a cooperating agency, NPS offers the following initial scoping comments for your consideration in the development of the Draft EIS for the project.

Biscayne NP was established "to preserve and protect for the education, inspiration, recreation, and enjoyment of present and future generations a rare combination of terrestrial, marine, and amphibious life in a tropical setting of great natural beauty." The park encompasses a large segment of the Florida reef tract (the only living coral reef tract in the continental United States), contains the majority of Biscayne Bay, and is an Outstanding Florida Water. Biscayne NP also supports an incredible array of wildlife, including more than 600 species of fishes, many of

which are commercially and recreationally utilized; over 200 species of birds; and 21 federally threatened or endangered species. Furthermore, the park is home to the longest protected stretch of mangrove shoreline along the eastern coast of the United States.

Biscayne Bay, much of which Biscayne NP encompasses, is also considered one of the premier recreation areas of the world for boating and fishing, and therefore serves as a major draw for tourism. Marine recreation also supports manufacturers, suppliers, and service industries. For example, boat sales and service centers, charter operations, marinas, dive-shops, bait/tackle sales are all primary beneficiaries of visitor and resident recreation expenditures. Marine recreation is also an integral part of the lives of local residents. Importantly, by conserving water quality, fisheries, coral, and other important marine resources, Biscayne NP provides the outstanding natural setting that supports the regional economy. The NPS requests that NRC consider these fundamentally important resources and values of Biscayne NP in the Draft EIS with the intent to avoid and minimize impacts to these resources and values.

Another important NPS concern is the potential for the project to impact the Comprehensive Everglades Restoration Plan (CERP), which includes major restoration initiatives for Biscayne NP, intended to restore the quantity, quality, timing, and distribution of freshwater to South Florida. CERP is vital to restoring habitat within Biscayne NP and the Department of Interior is a major federal partner in all CERP projects and system-wide assessments. At a cost of more than \$10.5 billion and over a 35-year timeline, this is the largest ecosystem restoration project ever undertaken in the United States. The Biscayne Bay Coastal Wetlands (BBCW) project, which is currently under construction on lands adjacent to Biscayne NP and provides primary benefits to Biscayne NP, is an effort under CERP to rehydrate the coastal wetlands and reduce salinity to more natural levels in the nearshore estuarine areas. The project area does not currently have adequate freshwater input; therefore, the NPS has concerns that any potential reductions in freshwater from the proposed action would not allow intended benefits and could be harmful to the area.

Units 3 and 4 currently use a 5,900-acre unlined earthen cooling canal system to cool the reactors. This system, constructed roughly fifty years ago, serves as an Industrial Wastewater Facility (IWF). Proper function of the canal system at the Turkey Point facility is necessary to serve as the heat sink (e.g. cooling function), as well as a containment system that prevents the exchange of constituents between the IWF and the surrounding environment. One of the biggest plant-specific issues to be addressed in the Draft EIS is IWF operations, as there are a number of environmental impacts associated with its current operation. Because the shallow unconfined Biscayne Aquifer has high connectivity to both the surface and ground waters of the surrounding area, the IWF requires significant additions of freshwater from an area with limited availability. In addition, operations associated with the IWF have not prevented the continual seepage of hyper-saline nutrient-laden water from the IWF to the surrounding environment¹. Further, the function of this system to serve as the ultimate heat sink for Units 3 and 4 has resulted in an excessive algal and nutrient build up in the canals that persists to this day, following implementation of the previous license extension and uprate in 2012¹.

The water quality issues relating to the operation of the IWF should be carefully analyzed in the Draft EIS. Groundwater tritium data and subsurface conductivity confirms that the IWF, while

designed as a recirculating system, is not a closed system and has: 1) connectivity with Biscayne Bay and nearby wetlands, and 2) a subterranean hyper-saline plume that underlies both the Turkey Point facility and Biscayne NP². Although plant-specific mitigation measures have been initiated, IWF wastewater, which is composed of hyper-saline water and the nutrients nitrogen and phosphorus, continues to pose a risk to Biscayne Bay water quality and NPS resources. As such, the NPS has concerns relating to potential environmental effects to NPS water quality from the continued long-term operation of the IWF. Additionally, the IWF requires a significant amount of freshwater from the regional water system, which competes with county, state, and federal efforts under CERP and the BBCW project to provide clean freshwater to the coastal ecosystem to restore habitat and improve water quality in Biscayne NP.

The operation of the IWF is highly impacted by local climatic conditions including changing rainfall and droughts that alter the thermal efficiency, salinity conditions, and impact the quantity of freshwater needed for operation¹. South Florida in general is experiencing increased rates of sea level rise along with greater severity of natural disasters including hurricanes and flooding. Consideration of these risks to the Turkey Point vicinity and the structural integrity of the IWF should be carefully analyzed in the Draft EIS. To address all of these issues related to the existing IWF, NPS recommends that the Draft EIS include an alternative or applicant condition that proposes to retire the IWF and construct cooling towers as a condition to extending operation of the facility.

Lastly, on April 5, 2018, the NRC Commission authorized the issuance of combined licenses for the construction and operation of Turkey Point nuclear Units 6 and 7. Supporting infrastructure includes construction of radial collector wells; cooling towers; a reclaimed water treatment facility; and new electric transmission lines, pipelines, roads, and bridges. The NPS requests clarity as to how this new infrastructure will be considered in the cumulative effects analysis of the EIS for Units 3 and 4.

If you have any questions, or need additional information regarding our comments, please contact Bryan Faehner, Energy & Environmental Protection Specialist, who can be reached at 202-513-7256 or bryan_faehner@nps.gov. Thank you for your consideration.

Sincerely,



Sarah Craighead
Acting Regional Director

¹ Miami-Dade County, 2016: Report on Recent Biscayne bay Water Quality Observations associated with Florida Power and Light Turkey Point Cooling Canal System Operations, March 2016

² 2012 - 2017, Turkey Point Plant Annual Monitoring Reports, Prepared by Ecology and Environment for FPL