March 22, 2012

Mr. Mano K. Nazar
Senior Vice President
and Chief Nuclear Officer
Florida Power & Light Company
Mail Stop NNP/JB
700 Universe Boulevard
Juno Beach, FL 33408-0420

SUBJECT: ENVIRONMENTAL REQUEST FOR ADDITIONAL INFORMATION LETTER 122103 RELATED TO ENVIRONMENTAL STANDARD REVIEW PLAN SECTION 5.2, WATER RELATED IMPACTS FOR THE COMBINED LICENSE APPLICATION REVIEW FOR TURKEY POINT, UNITS 6 AND 7

Dear Mr. Nazar:

By letter dated June 30, 2009, as supplemented by letters dated August 7, 2009, September 3, 2010, and December 21, 2010, Florida Power and Light Company (FPL) submitted its application to the U.S. Nuclear Regulatory Commission (NRC) for combined licenses (COLs) for two AP1000 advanced passive pressurized water reactors in accordance with the requirements contained in 10 CFR Part 52, "Licenses, Certifications and Approvals for Nuclear Power Plants." The NRC staff is performing a detailed review of this application to enable the staff to reach a conclusion regarding the environmental impacts of the proposed action.

The NRC staff has identified that additional information is needed to continue portions of the environmental review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within 45 days of the date of this letter. If you are unable to provide a response within 45 days, please state when you will be able to provide the response. In the event the response submitted is incomplete, please indicate in the response when the complete response will be provided. If changes are needed to the COL application, the staff requests that the RAI response include the proposed wording changes. Your response should also indicate whether any of the information provided is to be withheld as exempt from public disclosure pursuant to 10 CFR 2.390.

If you have any questions or comments concerning this matter, you may contact me at 301-415-1878 or via e-mail at Alicia.Williamson@nrc.gov.

Sincerely,

/RA/

Alicia Williamson, Environmental Project Manager
Environmental Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-040, 52-041

Enclosure:
As stated

cc: w/enclosure see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-1878 or via e-mail at Alicia.Williamson@nrc.gov.

Sincerely,

/RA/

Alicia Williamson, Environmental Project Manager
Environmental Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-040, 52-041
eRAI Tracking No. 5766

Enclosure:
As stated

cc: w/enclosure see next page

DISTRIBUTION:

PUBLIC
EPB1 R/F
AWilliamson, NRO
AKugler, NRO
RWeisman, OGC
MComar, NRO
MTonacci, NRO
WBurton, NRO
RidsNroDsea
DBarnhusrt, NRO
MHaque, NRO
MWillingham,NRO
RidsNroDseaRap2
RidsOgcMailCenter
PMadden, NRO
RBryce
(rw.bryce@pnnl.gov)
MClouser, USACE
(megan.l.clouser@usace.army.mil

ADAMS Accession Number: ML12081A068 NRO-002

OFFICE	NRO/DNRL/EPB1/PM	NRO/DNRL/EPB1/LA	NRO/DNRL/EPB1/BC
NAME	AWilliamson*	ARedden (via e-mail)	WBurton*
DATE	03/22/12	03/21/12	03/22/12

***Approval captured electronically in the electronic RAI system.**

OFFICAL RECORDS COPY

Request for Additional Information No. 5766 Revision 2

Turkey Point Units 6 and 7
Florida P and L
Docket No. 52-040 and 52-041
SRP Section: EIS 5.2 - Water Related Impacts
Application Section: Part 3, Environmental Report, Section 5.2

QUESTIONS for Environmental Technical Support Branch (RENV)

EIS 5.2-1

The radial collector well system is described as a backup water supply. Describe the maximum amount of time each year that the radial collector wells (RCW) will be operated, the maximum continuous time they will be operated, the distribution of operational time through the year, and the lengths of time and pumping rates during the operational periods of the radial collector wells. Explain any assumptions used to support this response.

Different reports supporting the combined license propose different lateral lengths for the radials of the RCW. The Groundwater Modeling Report states 700 feet and the Cooling Water Supply and Disposal Conceptual Design Report states 900 feet. Please clarify the length and number of the RCW laterals. Please provide a map to scale showing the layout of the RCW laterals and the Biscayne National Park boundaries including the proposed coordinates of the position of the RCWs and the projected cone of influence of the full scale operation of the RCWs.

EIS 5.2-2

Describe any monitoring of chemical parameters that will be conducted on the water produced by the radial collector wells and the water within the overlying Biscayne Bay during radial collector well operations. Describe how this data could be used to verify the model-predicted proportions of water taken from the Bay versus water taken from the Biscayne aquifer under lands to the west of Biscayne Bay.

EIS 5.2-3

What is the predicted additional drawdown at the nearest offsite water supply well caused by operation of the radial collector well system? Describe how this predicted drawdown was calculated, including all parameters, assumptions and model implementation details.

EIS 5.2-4

Describe the effects, if any, that pumping from the radial collector wells will have on the hypersaline groundwater plume from the existing cooling canals, considering the potential for density-driven unsteady flow of the hypersaline plume.

EIS 5.2-5

Provide the current status and content of the agreement for access to/appropriation of 90 MGD reclaimed water described in the ER. The staff is aware of an unsigned version of a Joint Participation Agreement between Miami-Dade County and FPL providing for development of a reclaimed water project.

EIS 5.2-6

During the site audit, staff reviewed the document "Cooling water supply and disposal conceptual design report: FPL proposed units 6&7 at Turkey Point" prepared in March 2009. This document discusses several possible routes to be used for the reclaimed water pipeline in the area near the South Dade Waste Water Treatment Plant. Provide information on these identified routes in a reference able form. If a route has been chosen from among these possible routes, provide a description of the proposed route and a GIS overlay of the route (the available GIS layer shows all the possible routes).

EIS 5.2-7

ER Revision 2 Section 2.3.1.1.4 Industrial Wastewater Facility states that the water level in the industrial wastewater facility (IWF) rises and falls with the tide in Biscayne Bay. Provide water level time series data in the IWF that show this phenomenon at a time frequency (minimum interval of 1 hour) adequate to resolve the shape, tidal range, maximum water levels, and minimum water levels. Also, include a map of the measurement locations. Include the maximum measured range in water level. Include data for a period of at least two weeks. Also, provide a discussion of a plausible conceptual model that accounts for the tidally-induced water level variation in the IWF. Provide a discussion concerning the effects of the operation of the RCW's on these phenomena. This information is requested for the cumulative impacts analysis.

EIS 5.2-8

Recent RAI response L-2012-101 provided conventional and priority pollutant data on the reclaimed water. Provide a technical discussion and analysis of the effect that the proposed cooling tower (heat transfer) process will have on the reclaimed water and radial well water constituents (concentrations and transformations). This information will be used to better understand the constituents expected to occur in the cooling tower drift. Source water analysis constituents to be addressed include: TDS, total suspended solids, etiologic agents (protozoa, viruses, and bacteria, including fecal coliform), chlorides, carbon, nutrients (nitrogen and phosphorus); pharmaceuticals (e.g., triclosan, warfarin, estradiol or other hormones), organics (including but not limited to pesticides, benzene, anthracene, phenol, phthalates) and metals.

EIS 5.2-9

Provide any comprehensive geological subsurface survey that would identify karst features and quantify the potential for fracture or collapse of the limestone bay bottom for the area proposed to be drilled. Provide any models and reports to show that the area for drilling will not collapse

(e.g., the lithographic information collected as part of the well construction for monitoring under the Uprate Monitoring Plan).

EIS 5.2-10

In the Salinity Impact Analysis, the ocean salinity concentration of 35 ppt does not reflect the actual seasonal variability in salinity concentrations that occur in Biscayne Bay. The analysis assumes that the annual average rainfall on the Bay is equal to the annual average evaporation in the Bay in the calculation. Provide the basis for this assumption including a reference for the evaporation value used (e.g., a value obtained from a weather station in close proximity to the site).