

March 9, 2011

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

SUBJECT: ENVIRONMENTAL REQUEST FOR ADDITIONAL INFORMATION LETTER
1103091 RELATED TO ESRP SECTION 5.3.4, NON-RADIOLOGICAL HEALTH,
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 final safety analysis report, 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.

M. Nazar

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If you have any questions or comments concerning this matter, you may contact me at 301-415-2828 or via e-mail at Andrew.kugler@nrc.gov.

Sincerely,

/ RA /

Andrew Kugler, Sr. Project Manager
Environmental Projects Branch 2
Division of Site and Environmental Reviews
Office of New Reactors

Docket Nos. 52-040, 52-041

Enclosure:
As stated

cc: w/enclosure see next page

M. Nazar

- 2 -

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Sincerely,

/ RA /

Andrew Kugler, Sr. Project Manager
Environmental Projects Branch 2
Division of Site and Environmental Reviews
Office of New Reactors

Docket Nos. 52-040, 52-041
eRAI Tracking No. 5594

Enclosure:
As stated

cc: w/enclosure see next page

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NRO-002

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NAME	BClayton*	AKugler*	PMoulding*	AKugler*
DATE	03/02/2011	03/02/2011	03/02/2011	03/09/2011

* Approval captured electronically in the electronic RAI system.

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Request for Additional Information No. 5594

3/9/2011

Turkey Point Units 6 and 7
Florida P and L
Docket No. 52-040 and 52-041
ESRP Section: EIS 5.8.1 - Etiological Agents
Application Section: ER 5.3.4

QUESTIONS for Environmental Technical Support Branch (RENV)

EIS 5.8.1-1

Provide the results of analyses for the presence of etiological agents in cooling water (both reclaimed and from radial collector wells, and for both proposed and alternative sites). The ESRP notes that data should be obtained on etiological agents, including the enteric pathogens *Vibrio* spp. (a concern in saline waters), *Salmonella* spp., *Shigella* spp., and *Plesiomonas shigelloides*, as well as *Pseudomonas* spp., thermophilic fungi, noroviruses, and toxin-producing algae such as *Karenia brevis*. In addition, analyses for the presence of any unusually high concentrations of the normally present *Legionella* spp. (Legionnaires' disease bacteria) and the free-living amoebae of the genera *Naegleria*, *Acanthamoeba*, and *Cryptosporidium*, should be cited. Also, historical and recent algal blooms in the vicinity of the site should be discussed. While discharge into surface waters is not planned for this site, address potential health effects caused by etiological agents from the use of reclaimed water on drift and groundwater exposure.

EIS 5.8.1-2

Provide a list of the outbreaks of waterborne diseases during the previous 10 years in the vicinity of the proposed and alternative sites.

EIS 5.8.1-3

Given the presence of etiologic and chemical agents, including "emerging pollutants of concern" (EPOCs; also referred to as "emerging substances of concern" (ESOCs), "contaminants of emerging concern" (CECs), and "microconstituents"), in reclaimed water to be used in the cooling system, explain whether human health impacts may be anticipated from the use of the reclaimed water (e.g., from exposures such as inhalation of drift and ingestion of contaminated groundwater). This discussion may include an explanation of the extent to which such substances are (or are not) addressed under Florida's reclaimed water regulations (Florida Administrative Code 62-610, Part IV).

The Staff's environmental review evaluates human health impacts associated with the plant's cooling system. The proposed use of reclaimed water for cooling is noted in the ER as being in compliance with Florida Administrative Code 62-610, Part IV, but some FPL, state, and other documents highlight potential impacts due to EPOCs and other constituents – see:

Enclosure

- Work Order #1 – Task 1.4, Analysis of Baseline Water Source Tech Review Report for Property 6 & 7 (HDR for FPL, December 2007);
- Request for Additional Information, Project No. 0250003-0 13-AC (PSD-FL-409), Florida Power and Light, Turkey Point Plant, Cooling Tower Project to Support Proposed Units 6 and 7 (from Jeffery F. Koerner, Florida Department of Environmental Protection, to Randall R. LaBauve, FPL, July 20, 2009);
- Guidelines for Water Reuse, EPA/625/R-04/108 (U.S. EPA, September 2004).

Furthermore, ER Sec. 5.3.1 refers to criteria that would be used to determine when reclaimed water would not be of sufficient quality for use in the cooling system; please identify these criteria or provide a reference to where they are identified. The December 15, 2010 FPL letter, Part 2 of 2, states that a *Reclaimed Water Reliability Study* will be available for inspection in the Reading Room when completed; please indicate whether this study will address human health and/or ecological risk-based criteria.