

## **PMTurkeyCOLPEm Resource**

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**From:** Kugler, Andrew  
**Sent:** Thursday, March 03, 2011 6:52 AM  
**To:** Orthen, Richard; Franzone, Steve; Maher, William; Antonio\_Fernandez@fpl.com  
**Cc:** Bryce, Robert W; TurkeyCOL Resource; Moulding, Patrick; Fringer, John  
**Subject:** Forwarding Draft RAI 5594-Non-Radiological Health  
**Attachments:** 110303-Draft RAI 5594-Non-Rad Health.docx

Steve

Attached is draft RAI 5594 prepared by the NRC staff for the environmental review of Turkey Point Units 6 and 7. RAI 5594 is related to Non-Radiological Health.

After you've had an opportunity to review the RAI, we can set up a call involving FPL and NRC for any clarifications of the request. At that time we can also discuss an appropriate timeframe for the FPL response. Note that the Regulatory Information Conference is next week, which may complicate efforts to arrange clarification calls. If you have any questions, please give me a call.

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Draft Request for Additional Information No. 5594

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-\*\*\*

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-\*\*\*

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-\*\*\*

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:

- 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.