PMTurkeyCOLPEm Resource

From: Kugler, Andrew
Sent: Wednesday, February 16, 2011 9:05 AM
To: Orthen, Richard; Franzone, Steve; Maher, William; Antonio_Fernandez@fpl.com
Cc: Bryce, Robert W; TurkeyCOL Resource
Subject: Forwarding Draft RAI 5498 - Meteorology, EIS Section 5.7
Attachments: 110216-Drafy RAI 5498 - Meteorology.docx

Steve

Attached is an RAI prepared by the NRC staff for the environmental review of Turkey Point Units 6 and 7. RAI 5498 is related to meteorological resources aspects of the review.

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. If you have any questions, please give me a call.

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Hearing Identifier: TurkeyPoint_COL_Public
Email Number: 213

Mail Envelope Properties (94A2A4408AC65F42AC084527534CF416443241762F)

Subject: Forwarding Draft RAI 5498 - Meteorology, EIS Section 5.7
Sent Date: 2/16/2011 9:04:30 AM
Received Date: 2/16/2011 9:04:35 AM
From: Kugler, Andrew

Created By: Andrew.Kugler@nrc.gov

Recipients:
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Tracking Status: None
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Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	568	2/16/2011 9:04:35 AM
110216-Drafy RAI 5498 - Meteorology.docx	22416	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Draft Request for Additional Information No. 5498

Turkey Point Units 6 and 7
Florida P and L
Docket No. 52-040 and 52-041
SRP Section: EIS 5.7 - Meteorological and Air Quality Impacts
Application Section: 5.7

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

EIS 5.7-***

Provide the AERMET input file used in developing the upper-air profile file (Mia0105.pfl) and surface hourly met file (Mia0105.sfc).

Provide quantitative information on the intermediate step used in developing the final meteorological files as used in AERMOD (Mia0105.pfl and Mia0105.sfc). This intermediate step is performed by running the AERMET program with specified options, and using as input the surface files created in Attachment A to FPL's November 1, 2010, letter (the "early letter") and the Miami hourly surface and upper air data as provided in Attachment B to the same letter. Provide the AERMET input file used in developing the upper-air profile file (Mia0105.pfl) and surface hourly met file (Mia0105.sfc) or identify the origin of this data if provided by a third party.

EIS 5.7-***

Provide an explanation as to why one cooling tower particle size distribution is different from that of the other five towers. Also provide information that documents and supports the particle size distribution used in this analysis using the TDS of 50,000 ppm.

Clarify the information provided in Attachment J to the letter dated November 1, 2010, which provides the input files used by FPL in the modeling for salt deposition.

A total of six cooling towers are modeled (3 for each unit). For unit TP7W01 the particle diameter size distribution is different from the other 5 units.

PARTDIAM TP7W01 10 15 20 25 35 65 170

As opposed to the other cooling towers having a particle size distribution of

PARTDIAM TP7E01 10 50 70 90 150 350 600

Provide an explanation as to why this one cooling tower is different from the other five towers. Also provide information that documents and supports the particle size distribution used in this analysis using the TDS of 50,000 ppm.

EIS 5.7-***

Clarify the information provided in Attachment J to the letter dated November 1, 2010, which provides the input files used by FPL in the modeling for salt deposition.

The particulate matter emission rates for each cooling tower unit are reported as 3.431 g/s or a total of 74.11 kg/hr and appear to be based on TDS of 50,000 ppm as reported in a table in Section 5.3 of the ER. Provide justification for the use of this number in the normal operations of the cooling tower makeup water.

EIS 5.7-***

Clarify the information provided in Attachments F and J to the letter dated November 1, 2010, regarding the CALPUFF and AERMOD model inputs, respectively. In reviewing the location of the receptors it was observed that 19 receptor locations were excluded from the inner 4-km x 4-km receptor domain. Most of the 19 receptor locations were in close proximity to the cooling towers. The specific receptors are:

UTM-Easting	UTM- Northing	UTM-Easting	UTM- Northing
566800	2811700	567200	2811600
566800	2811800	567200	2811700
566900	2811700	567200	2811800
566900	2811800	567300	2811600
567000	2811600	567300	2811700
567000	2811700	567300	2811800
567000	2811800	567400	2811600
567100	2811600	567400	2811700
567100	2811700	567400	2811800
567100	2811800		

Of particular interest are the missing receptors at locations: UTM_E – 566900.00 and UTM_N – 2811700.00 and UTM_E – 567000.00 and UTM_N – 2811600.00 as these are located within 100-m of the location with the highest modeled salt deposition, UTM_E – 566900.00, UTM_N – 2811600.00 which totaled 0.784 kg/m^2/yr (or a rate of 652 kg/ha/mo). Provide an explanation as to why these 19 receptor locations were excluded from the analysis.