## PMTurkeyCOLPEm Resource

**From:** Kugler, Andrew
**Sent:** Monday, March 07, 2011 12:45 PM
**To:** Terry, Tomeka; Moulding, Patrick; Bryce, Robert W; Comar, Manny; Cruz, Jeffrey; Whited, Ryan; RidsNroDser Resource; RidsNroDserRap2 Resource; RidsOgcMailCenter Resource; Franzone, Steve; Orthen, Richard; Maher, William; Antonio_Fernandez@fpl.com; Price, Sarah; Quinlan, Kevin
**Cc:** TurkeyCOL Resource
**Subject:** ENVIRONMENTAL REQUEST FOR ADDITIONAL INFORMATION LETTER 1103071 RELATED TO ESRP SECTION 5.7, METEOROLOGICAL AND AIR QUALITY IMPACTS, FOR THE COMBINED LICENSE APPLICATION REVIEW FOR TURKEY POINT, UNITS 6 AND 7
**Attachments:** 110307-RAI 5498 Ltr - Air and Met-ML110660019.pdf

All:

Attached is RAI letter No. 1103071 (RAI 5498) related to ESRP section 5.7, Meteorological and Air Quality Impacts, for the Turkey Point Units 6 and 7 Combined License Application. The Accession number is ML110660019.

FPL is asked to respond within 45 days, by April 21, 2011. If you have any further questions, please feel free to contact me.

Andrew Kugler
Sr. Environmental Project Manager
NRC/NRO/RAP2
301-415-2828

**Hearing Identifier:** TurkeyPoint_COL_Public
**Email Number:** 235

**Mail Envelope Properties** (94A2A4408AC65F42AC084527534CF41656A758A0A8)

**Subject:** ENVIRONMENTAL REQUEST FOR ADDITIONAL INFORMATION LETTER 1103071 RELATED TO ESRP SECTION 5.7, METEOROLOGICAL AND AIR QUALITY IMPACTS, FOR THE COMBINED LICENSE APPLICATION REVIEW FOR TURKEY POINT, UNITS 6 AND 7
**Sent Date:** 3/7/2011 12:44:42 PM
**Received Date:** 3/7/2011 12:44:43 PM
**From:** Kugler, Andrew

**Created By:** Andrew.Kugler@nrc.gov

**Recipients:**
"TurkeyCOL Resource" <TurkeyCOL.Resource@nrc.gov>
Tracking Status: None
"Terry, Tomeka" <Tomeka.Terry@nrc.gov>
Tracking Status: None
"Moulding, Patrick" <Patrick.Moulding@nrc.gov>
Tracking Status: None
"Bryce, Robert W" <rw.bryce@pnl.gov>
Tracking Status: None
"Comar, Manny" <Manny.Comar@nrc.gov>
Tracking Status: None
"Cruz, Jeffrey" <Jeffrey.Cruz@nrc.gov>
Tracking Status: None
"Whited, Ryan" <Ryan.Whited@nrc.gov>
Tracking Status: None
"RidsNroDser Resource" <RidsNroDser.Resource@nrc.gov>
Tracking Status: None
"RidsNroDserRap2 Resource" <RidsNroDserRap2.Resource@nrc.gov>
Tracking Status: None
"RidsOgcMailCenter Resource" <RidsOgcMailCenter.Resource@nrc.gov>
Tracking Status: None
"Franzone, Steve" <Steve.Franzone@fpl.com>
Tracking Status: None
"Orthen, Richard" <Richard.Orthen@fpl.com>
Tracking Status: None
"Maher, William" <William.Maher@fpl.com>
Tracking Status: None
"Antonio_Fernandez@fpl.com" <Antonio_Fernandez@fpl.com>
Tracking Status: None
"Price, Sarah" <Sarah.Price@nrc.gov>
Tracking Status: None
"Quinlan, Kevin" <Kevin.Quinlan@nrc.gov>
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

| **Files** | **Size** | **Date & Time** |
|---|---|---|
| MESSAGE | 468 | 3/7/2011 12:44:43 PM |
| 110307-RAI 5498 Ltr - Air and Met-ML110660019.pdf | 85255 | |

**Options**

| | |
|---|---|
| **Priority:** | Standard |
| **Return Notification:** | No |
| **Reply Requested:** | No |
| **Sensitivity:** | Normal |
| **Expiration Date:** | |
| **Recipients Received:** | |

March 7, 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 1103071 RELATED TO ESRP SECTION 5.7, METEOROLOGICAL AND AIR QUALITY 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 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.

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

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
eRAI Tracking No. 5498

Enclosure:
As stated

cc: w/enclosure see next page

DISTRIBUTION:

| | | | |
|---|---|---|---|
| AKugler, NRO | TTerry, NRO | PMoulding, OGC | RBryce (rw.bryce@pnl.gov) |
| RAP2 R/F | MComar, NRO | JCruz, NRO | RWhited, |
| RidsNroDser | KQuinlan, NRO | NRORidsNroDserRap2 | RidsOgcMailCenterResource |
| RSchaaf, NRO | | | |

**ADAMS Accession Number: ML110660019** NRO-002

| **OFFICE** | NRO/RSAC/ABC | NRO/DSER/RAP2/ PM | OGC | NRO/DSER/RAP2/ PM |
|---|---|---|---|---|
| **NAME** | DBrown* | AKugler* | PMoulding* | AKugler* |
| **DATE** | 02/09/2011 | 02/10/2011 | 02/14/2011 | 03/07/2011 |

* Approval captured electronically in the electronic RAI system.

**OFFICAL RECORDS COPY**

Request for Additional Information No. 5498

3/7/2011

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 5.7-1
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 5.7-2
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.

Enclosure

EIS 5.7-3
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 5.7-4
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.