

## **PMTurkeyCOLPEm Resource**

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**From:** Comar, Manny  
**Sent:** Monday, July 29, 2013 4:42 PM  
**To:** Bovol, Bruce; Burkhart, Lawrence; Butler, Rhonda; Comar, Manny; Galletta, Thomas; Habib, Donald; Hale, Jerry; Hughes, Brian; Joshi, Ravindra; McGovern, Denise; Minarik, Anthony; Nagel, Cheri; orthen, Richard; Raymond Burski; Steve Franzone; STEVEN.HAMRICK; TurkeyCOL Resource; William Maher; RidsAcrsAcnw\_MailCTR Resource; RidsNroDnrILb4 Resource; RidsOgcMailCenter Resource; RidsRgn2MailCenter Resource  
**Cc:** Dehmel, Jean-Claude; McCoppin, Michael  
**Subject:** RAI LETTER NO.077 RELATED TO SRP SECTION 11.03 GASEOUS WASTE SYSTEMS FOR THE TURKEY POINT NUCLEAR PLANT UNITS 6 AND 7 COMBINED  
**Attachments:** PTN-ltr-77-rai7112.pdf

All:

Attached is the RAI letter No. 77 related to SRP Section: 11.03 – Gaseous Waste management System for the Turkey Point Units 6 and 7 Combined License Application.

The Accession number is ML13210A400

If you have any further questions, please feel free to contact me.

Thanks

Manny Comar  
Senior Project Manager  
NRO/DNRL/NWE1  
Nuclear Regulatory Commission  
301-415-3863  
<mailto:manny.comar@nrc.gov>

**Hearing Identifier:** TurkeyPoint\_COL\_Public  
**Email Number:** 816

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D0DB23757E3F)

**Subject:** RAI LETTER NO.077 RELATED TO SRP SECTION 11.03 GASEOUS WASTE SYSTEMS FOR THE TURKEY POINT NUCLEAR PLANT UNITS 6 AND 7 COMBINED  
**Sent Date:** 7/29/2013 4:41:33 PM  
**Received Date:** 7/29/2013 4:41:42 PM  
**From:** Comar, Manny

**Created By:** Manny.Comar@nrc.gov

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Tracking Status: None

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

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PTN-ltr-77-rai7112.pdf	115950	

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

## TurkeyPointRAIsPEm Resource

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**From:** Comar, Manny  
**Sent:** Monday, July 29, 2013 4:02 PM  
**To:** TurkeyPointRAIsPEm Resource  
**Subject:** RAI LETTER NO.077 RELATED TO SRP SECTION 11.03 GASEOUS WASTE  
MANAGEMENT SYSTEMS FOR THE TURKEY POINT NUCLEAR PLANT UNITS 6 AND 7  
COMBINED  
**Attachments:** PTN-RAI-LTR-077.doc

**Hearing Identifier:** TurkeyPoint\_COL\_eRAIs  
**Email Number:** 89

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D0DB23757E1D)

**Subject:** RAI LETTER NO.077 RELATED TO SRP SECTION 11.03 GASEOUS WASTE MANAGEMENT SYSTEMS FOR THE TURKEY POINT NUCLEAR PLANT UNITS 6 AND 7 COMBINED  
**Sent Date:** 7/29/2013 4:02:15 PM  
**Received Date:** 7/29/2013 4:02:17 PM  
**From:** Comar, Manny

**Created By:** Manny.Comar@nrc.gov

**Recipients:**  
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Tracking Status: None

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

July 29, 2013

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: REQUEST FOR ADDITIONAL INFORMATION LETTER NO.077 RELATED  
TO SRP SECTION 11.03 GASEOUS WASTE MANAGEMENT SYSTEMS FOR  
THE TURKEY POINT NUCLEAR PLANT UNITS 6 AND 7 COMBINED  
LICENSE APPLICATION

Dear Mr. Nazar:

By letter dated June 30, 2009, as supplemented by letters dated August 7, 2009, September 3, 2010, December 21, 2010, December 16, 2011 and December 14, 2012, Florida Power and Light submitted its application to the U. S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advanced passive pressurized water reactors pursuant to 10 CFR Part 52. The NRC staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the 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 301-415-3863 or [manny.comar@nrc.gov](mailto:manny.comar@nrc.gov).

Sincerely,

**/RA/**

Manny Comar, Lead Project Manager  
AP1000 Licensing Branch 4  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-040  
52-041

Enclosure:  
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-3863 or manny.comar@nrc.gov.

Sincerely,

**/RA/**

Manny Comar, Lead Project Manager  
AP1000 Licensing Branch 4  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-040  
52-041  
eRAI Tracking No. 7112

Enclosure:  
Request for Additional Information

Distribution:

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RidsNroDnrLB4	BBaval	TGalletta
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RidsRgn2MailCenter	JHale	CDehmel
BAnderson	DHabib	MMcCoppin

NRO-002

OFFICE	RPAC/BC	LB4/PM	OGC	LB4/L-PM
NAME	MMcCoppin*	MComar*	RWeisman*	MComar*
DATE	4/30/13	5/14/13	7/02/13	7/29/13

\*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**

## **Request for Additional Information**

Issue Date: July 29, 2013

Application Title: Turkey Point Units 6 and 7

Operating Company: Florida P and L

Docket No. 52-040 and 52-041

Review Section: 11.03 - Gaseous Waste Management System

Application Section: 11.3

### QUESTIONS

#### 11.03- 1

FPL, Turkey Point Units 6&7, FSAR Tier 2, Rev. 4, Section 11.3.3 and PTN COL 11.3-1 and 11.5-3 present site-specific information and analyses in demonstrating compliance with gaseous effluent releases and dose limits to members of the public under 10 CFR 20.1301, 20.1302 and 20.1301(e) and Part 50, Appendix I design objectives and ALARA provisions. Based on a review of the information and conduct of confirmatory analyses, the staff identified inconsistencies and a need to clarify assumptions used in the analyses and results presented by the applicant. Specifically, the applicant is requested to address the following observations in updating FSAR Section 11.3.3:

1. In FSAR Tier 2, Rev. 4, Table 11.3-201, the applicant should add a reference to Footnote (a) in documenting the basis that there are no milk animals (cows and goats) within 5 miles of the proposed location of Units 6&7. Similarly, in FSAR Tier 2, Rev. 4, Table 11.3-204, the applicant should add a footnote stating that there are no milk animals (cows and goats) within 5 miles of the proposed location of Units 6&7 in qualifying dose results to the maximally exposed individual.
2. In FSAR Tier 2, Rev. 4, Table 11.3-202, the applicant should review the population data entry for the SW Sector at the 40-50 mile radius. The population entry at that sector location would appear to be 12 instead of zero, given the information of FSAR Tier 2, Rev. 4, Figure 2.1-225.
3. In FSAR Tier 2, Rev. 4, Table 11.3-203, the applicant should add a unit conversion to Footnote (a) for the purpose of converting a commodity trading unit (cwt) to a mass (100 lbs) for the stated vegetable production rates (kg) since this information is used in the collective population dose analysis.
4. In FSAR Tier 2, Rev. 4, 11.3, the applicant should add a new subsection (e.g., FSAR 11.3.6, References) in listing all references cited in FSAR Section 11.3, including those noted in FSAR Tier 2, Rev. 4, Table 11.3-203 and additional ones as requested under this RAI.
5. In FSAR Tier 2, Rev. 4, Table 11.3-206, the applicant should expand the details in

Footnote (b) in documenting and identify the specific Units 3 & 4 annual effluent reports on which the applicant relies upon for this conclusion. Provide specific references.

6. In confirming that gaseous effluent concentrations are in compliance with Part 20, App. B, Table 2, Column 1 limits and the unity rule for radionuclide mixtures, the applicant did not compare the EAB atmospheric dispersion parameter of AP1000 DCD, FSAR Tier 2, Rev. 19, Section 11.3.3.2 and Table 11.3-4 (sheet 2) with the corresponding site-specific EAB atmospheric dispersion parameter presented in FSAR Tier 2, Rev. 4, Section 2.3.5. The applicant is requested to address and acknowledge this comparison in COL FSAR 11.3.3 in demonstrating compliance with Part 20, App. B, Table 2, Column 1 limits and the unity rule since the result of this analysis and regulatory compliance are dependent on site-specific meteorological data.
7. In confirming that gaseous effluent concentrations are in compliance with the guidance of NUREG-0800, SRP Section 11.3 and BTP 11-5 (Postulated Radioactive Releases Due to a Waste Gas System Leak or Failure), the applicant did not compare the results of AP1000 DCD FSAR Tier 2, Rev. 19, Section 11.3.3.4 (2nd paragraph) and the EAB atmospheric dispersion parameter of AP1000 DCD, FSAR Tier 2, Rev. 19, Section 2.1, Table 2-1 (sheet 3) with the corresponding site-specific EAB atmospheric dispersion parameter (0-2 hour X/Q) presented in COL FSAR Tier 2, Rev. 4, Section 2.3.4. The applicant is requested to address and acknowledge this comparison in COL FSAR 11.3.3 in demonstrating compliance with AP1000 DCD FSAR Tier 2, Rev. 19, Section 11.3.3.4 and SRP Section 11.3 and BTP 11-5 since the dose result of this analysis and regulatory compliance are dependent on site-specific meteorological data.
8. For the results presented in FSAR Tier 2, Rev. 4, Tables 11.3-204 and 11.3-205, the staff noted the following inconsistencies in attempting to confirm doses to members of the public at the stated locations of exposures and EAB. The applicant is requested to review and revise the information in the COL FSAR sections as identified below.
  - i. In FSAR Tier 2, Rev. 4, Table 11.3-203, the applicant should state whether the 50-mile 2090 meat production rate used in its analysis is based on the sum of the beef cattle and broilers yearly production rates as a conservative assumption.
  - ii. The assumed EAB distances described in FSAR Tier 2, Rev. 4, Section 11.3.3.4 (top of p.11.3-2) appear inconsistent with that presented in FSAR Tier 2, Rev. 4, Table 2.3.5-207. Similarly, the listing and locations of EAB dispersion and deposition parameters appear to be inconsistently presented between FSAR Tier 2, Rev. 4, Tables 2.3.5-207 and 2.3.5-202. FSAR Tier 2, Rev. 4, Table 2.3.5-202 appears to provide an inconsistent

listing of EAB sectors of interest when compared to that of Table 2.3.5-207.

- iii. Based on a review of FSAR Tier 2, Rev. 4, Table 11.3-205, it is not clear as to why doses to nearest resident and that due to the consumption of meat and vegetables are reported as beta and gamma air dose. Under Part 50, Appendix I, Section II.B.1 and RG 1.109, these numerical guides do not apply to these exposure pathways and should be reported only on a per reactor unit basis. The applicant should confirm whether the beta and gamma air dose results were multiplied by two in Table 11.3-205.
- iv. Given the information supporting the results presented in FSAR Tier 2, Rev. 4, Table 11.3-204, the staff could not reproduce the dose estimates for the stated locations of the garden and meat animals. The applicant is requested to confirm that the provided information is complete and consistent with dose results, as described in FSAR Tier 2, Section 11.3 text and tables.