

## TurkeyPointRAIsPEm Resource

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**From:** Comar, Manny  
**Sent:** Thursday, June 04, 2015 11:20 AM  
**To:** TurkeyPointRAIsPEm Resource  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO.84 RELATED TO SRP SECTION 11.02.03 LIQUID WASTE MANAGEMENT SYSTEMS FOR THE TURKEY POINT NUCLEAR PLANT UNITS 6 AND 7 COL  
**Attachments:** PTN-RAI-LTR-084.doc

**Hearing Identifier:** TurkeyPoint\_COL\_eRAIs  
**Email Number:** 96

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**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO.84 RELATED TO  
SRP SECTION 11.02.03 LIQUID WASTE MANAGEMENT SYSTEMS FOR THE TURKEY POINT  
NUCLEAR PLANT UNITS 6 AND 7 COL

**Sent Date:** 6/4/2015 11:19:47 AM

**Received Date:** 6/4/2015 11:19:49 AM

**From:** Comar, Manny

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

**Recipients:**

"TurkeyPointRAIsPEM Resource" <TurkeyPointRAIsPEM.Resource@nrc.gov>

Tracking Status: None

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

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MESSAGE	8	6/4/2015 11:19:49 AM
PTN-RAI-LTR-084.doc	65594	

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

June 4, 2015

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO.084 RELATED  
TO SRP SECTION 11.02.03 LIQUID WASTE MANAGEMENT SYSTEMS FOR  
THE TURKEY POINT

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, December 14, 2012, December 16, 2013, and October 29, 2014 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 30 days of the date of this letter. If you are unable to provide a response within 30 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 1  
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 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-040  
52-041  
eRAI Tracking No. 7908

Enclosure:  
Request for Additional Information

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NRO-002

OFFICE	RPAC/BC	LB4/PM	LB1/L-PM
NAME	MMcCoppin*	MComar*	MComar*
DATE	5/12/15	5/12/15	6/04/15

\*Approval captured electronically in the electronic RAI system.

**Request for Additional Information 084**  
Issue Date: 06/04/2015  
Application Title: Turkey Point Units 6 and 7  
Operating Company: Florida P and L  
Docket No. 52-040 and 52-041  
Review Section: 11.02 - Liquid Waste Management System

**QUESTIONS**

11.02-8

NRC staff has reviewed the information presented in FSAR section 11.2 Rev. 6 and cannot determine the basis of the source term used in the analysis to calculate dose for 10 CFR 50 Appendix I Dose Objectives. At present the applicant states a one unit source term in FSAR Table 11.2-201 and describes a maximum source term that is identified through the use of the hydrology models as found in Table 11.2-203. Staff is unable to determine in the discussions provided in section 11.2 if the maximum radionuclide concentrations provided in Table 11.2-203 and in section 11.2.3.5.2.5.1 are also for one unit.

FSAR section 11.2 Rev. 6 includes a dose assessment for the DWI that uses the dose design objectives of 10 CFR 50, Appendix I as the basis for showing potential doses are "as low as reasonably achievable" (ALARA) for compliance with 10 CFR 20.2002(d). NRC staff finds this approach acceptable for 10 CFR 20.2002 disposals of a few millirem per year potential dose to members of the public. However, the analyses performed for the inadvertent intrusion scenario, as described in Table 11.2-209, appear to represent doses for a single unit, since the radionuclide concentrations are also representative of a single unit input, even though the transport times appear to have been calculated for a two unit input flows. Therefore, the analysis do not appear to be consistent with a single unit dose assessment for use of the Appendix I design objectives, which are also specified on a per unit basis, as a means for demonstrating ALARA.

NRC staff finds that dose is a function of concentration; and the concentration for the DWI is the same whether it is one or two units since the source term divided by dilution flow stays the same. For one unit, the concentration is determined by dividing the single unit source term by the single unit dilution flow. The same holds for two units, where a two unit source term would be divided by the two unit dilution flow. Both source term and dilution flow double, making the concentration stay the same as for a single unit. The maximum individual dose for the intruder as presented in Table 11.2-210 is 5.6 mrem/year, which is above the Appendix I design objective of 3 mrem/y for liquid pathways. And, as discussed above, doubling the Appendix I design objective doses, since the analyses performed appear to represent two unit input flows, does not show adequate compliance on a per unit basis.

NRC staff requests clarification on the dose assessment included in FSAR section 11.2 Rev 6 for the intruder scenario to show how doses, when calculated on a per unit basis, remain in compliance with the design objective of 10 CFR 50, Appendix I. NRC staff also request that clarifying text be added to section 11.2 to support the description of compliance on a per unit basis.

The NRC staff request that any revisions to the FSAR be provided as a markup to the response to this RAI.

