

## **PMTurkeyCOLPEm Resource**

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**From:** Comar, Manny  
**Sent:** Wednesday, March 18, 2015 12:13 PM  
**To:** orthen, Richard; Raymond Burski; Steve Franzone; STEVEN.HAMRICK; TurkeyCOL Resource; William Maher  
**Cc:** Comar, Manny  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LTR. No: 83 RELATED TO SRP 03.08.05 FOUNDATIONS FOR THE TURKEY POINT UNITS 6 AND 7 COL  
**Attachments:** PTN-ltr-83-rai7815.pdf

All:

Attached is the RAI letter No. 83 related to SRP Section:.03.08.05 Foundations for the Turkey Point Units 6 and 7 Combined License Application.

The Accession number is ML15076A504

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

Thanks

Manny Comar  
Senior Project Manager  
Nuclear Regulatory Commission  
Office of New Reactors  
301-415-3863  
[Manny.comar@nrc.gov](mailto:Manny.comar@nrc.gov)

**Hearing Identifier:** TurkeyPoint\_COL\_Public  
**Email Number:** 985

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D0021628564D67)

**Subject:** REQUEST FOR ADDITIONAL INFORMATION LTR. No: 83 RELATED TO SRP  
03.08.05 FOUNDATIONS FOR THE TURKEY POINT UNITS 6 AND 7 COL  
**Sent Date:** 3/18/2015 12:12:49 PM  
**Received Date:** 3/18/2015 12:12:51 PM  
**From:** Comar, Manny

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

**Recipients:**

"Comar, Manny" <Manny.Comar@nrc.gov>  
Tracking Status: None  
"orthen, Richard" <richard.orthen@fpl.com>  
Tracking Status: None  
"Raymond Burski" <raymond.burski@fpl.com>  
Tracking Status: None  
"Steve Franzone" <steve.Franzone@fpl.com>  
Tracking Status: None  
"STEVEN.HAMRICK" <steven.hamrick@fpl.com>  
Tracking Status: None  
"TurkeyCOL Resource" <TurkeyCOL.Resource@nrc.gov>  
Tracking Status: None  
"William Maher" <William.maher@fpl.com>  
Tracking Status: None

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

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	473	3/18/2015 12:12:51 PM
PTN-ltr-83-rai7815.pdf	143644	

**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:** Tuesday, March 17, 2015 3:05 PM  
**To:** TurkeyPointRAIsPEm Resource  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO.83 RELATED TO SRP SECTION 03.08.05 FOUNDATIONS FOR THE TURKEY POINT NUCLEAR PLANT UNITS 6 AND 7 COL  
**Attachments:** PTN-RAI-LTR-083.doc

**Hearing Identifier:** TurkeyPoint\_COL\_eRAIs  
**Email Number:** 95

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D00216282D0F33)

**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO.83 RELATED TO SRP SECTION 03.08.05 FOUNDATIONS FOR THE TURKEY POINT NUCLEAR PLANT UNITS 6 AND 7 COL

**Sent Date:** 3/17/2015 3:05:27 PM

**Received Date:** 3/17/2015 3:05:29 PM

**From:** Comar, Manny

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

**Recipients:**

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

Tracking Status: None

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

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	8	3/17/2015 3:05:29 PM
PTN-RAI-LTR-083.doc	65594	

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

March 17, 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.083 RELATED  
TO SRP SECTION 03.08.05 FOUNDATIONS 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, 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. 7815

Enclosure:  
Request for Additional Information

Distribution:

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RidsNroDnrLB1	LBurkhart	ASTieve
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RidsRgn2MailCenter	RKarass	WGleaves

NRO-002

OFFICE	SEB1/BC	LB4/PM	LB1/L-PM
NAME	MShams*	MComar*	MComar*
DATE	2/19/15	2/23/15	3/17/15

\*Approval captured electronically in the electronic RAI system.

## **Request for Additional Information 083**

Issue Date: 03/17/2015

Application Title: Turkey Point Units 6 and 7

Operating Company: Florida P and L

Docket No. 52-040 and 52-041

Review Section: 03.08.05 - Foundations

Application Section:

### **QUESTIONS**

#### **03.08.05-3**

In its revised response to RAI 6433, Question 03.08.05-1 dated December 11, 2014, the applicant stated that the lean concrete fill beneath the Nuclear Island (NI) structure will be design and constructed using the guidelines of the American Concrete Institute (ACI) 207, "Guide to Mass Concrete." The staff reviewed Section 2.5.4.5.1.2, "Power Block and Site Grade Raising," of the FSAR, Revision 6, and noticed that the applicant provided a description of a thermal control plan for reducing thermal cracking of the lean concrete fill beneath the NI. The FSAR, however, did not describe the design and construction approach for the lean concrete fill to attain the required fill mechanical properties. The information is necessary for the staff to assess the ability of the fill material to perform its function to support the NI. The applicant is requested to describe in sufficient detail the design and construction approaches of the lean concrete fill in Section 2.5.4.1.2 of the FSAR.

#### **03.08.05-4**

SRP Section 3.8.5 requires confirmation that the Nuclear Island (NI) remains stable under design basis demands. AP1000 DCD Section 3.4.1.1.1.1, "Waterproofing," states that the waterproofing membrane between the mudmat must provide adequate shear to transfer forces due to seismic loading and that this function is a seismic Category I. The DCD also provides a requirement for the COL applicant to demonstrate that the coefficient of friction (COF) for the waterproofing membrane to be used beneath NI is equal to or greater than 0.55. The staff reviewed Section 14.3.3.4, "Waterproofing Membrane ITAAC," of the FSAR, and noticed that the applicant provided a brief description of the Waterproofing Membrane ITAAC. The applicant stated that, "Site-specific ITAAC for the waterproof membrane will be developed to verify by testing that the mudmat-waterproofing-mudmat interface beneath the Nuclear Island basemat has a minimum coefficient of friction to resist sliding of 0.55." To ensure that the COF of 0.55 is met, the applicant is requested to provide in Appendix B to Part 10 of the FSAR an ITAAC table that describes the design commitment; the inspection, testing or analyses to be performed; and the as-built design criteria of the waterproofing membrane.