

TurkeyPointRAIsPEm Resource

From: Comar, Manny
Sent: Thursday, December 16, 2010 10:56 AM
To: TurkeyPointRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 011 RELATED TO SRP
SECTION 02.04.12 GROUNDWATER FOR THE TURKEY POINT NUCLEAR PLANT UNITS
6 AND 7 COMBINED LICENSE APPLICATION
Attachments: PTN-RAI-LTR-011.doc

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Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 011 RELATED TO
SRP SECTION 02.04.12 GROUNDWATER FOR THE TURKEY POINT NUCLEAR PLANT UNITS 6 AND
7 COMBINED LICENSE APPLICATION

Sent Date: 12/16/2010 10:56:16 AM

Received Date: 12/16/2010 10:56:35 AM

From: Comar, Manny

Created By: Manny.Comar@nrc.gov

Recipients:

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

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Options

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Reply Requested: No

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Expiration Date:

Recipients Received:

December 16, 2010

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. 011 RELATED TO
SRP SECTION 02.04.12 GROUNDWATER 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 a letters dated August 7, 2009 and September 3, 2010, 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.

Sincerely,

/RA/

Manny Comar, Lead Project Manager
AP1000 Projects 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 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-040
52-041
eRAI Tracking No. 5190

Enclosure:
Request for Additional Information

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NRO-002

OFFICE	SBPA/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	RRaione*	MComar*	PMoulding*	MComar*
DATE	10/19/10	10/28/10	11/05/10	12/16/10

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

Request for Additional Information No. 5190

12/16/2010

Turkey Point Units 6 and 7
Florida P and L
Docket No. 52-040 and 52-041
SRP Section: 02.04.12 - Groundwater
Application Section: FSAR 2.4.12

QUESTIONS from Hydrologic Engineering Branch (RHEB)

02.04.12-1

Discuss the effect of future (e.g., next 100 years) sea level rise on groundwater depths with respect to the DCD parameter for maximum groundwater levels. Describe the effect of sea level rise due to climate change on the need for a permanent dewatering system. Provide the basis for determination of anticipated sea level change.

02.04.12-2

Describe the spatial configuration, construction, and operation of the make-up water reservoir (MWR) which is a part of the hydraulic environment on the site island. Discuss the influence of the MWR on groundwater head levels and provide information on the direction of hydraulic gradient and hydraulic head under normal operating conditions. Provide information on the hydraulic conductivity and thickness of the concrete liner of the MWR. Discuss the initial groundwater flux from a potential MWR failure or overflow, and its effect on local groundwater levels and direction of hydraulic gradient and hydraulic head.

02.04.12-3

Discuss the extent of post-construction infiltration on the island. The FSAR analysis assumes that the island is entirely paved which could have the potential for underestimating the extent of post-construction groundwater mounding. Discuss the proportion of paved versus unpaved exposed land surface on the island after construction. Does the extent of pavement influence the need for a permanent dewatering system?

02.04.12-4

Figures 2.4.13-202 and 2.14.13-203 of the FSAR suggest that the area could receive infiltration but mounding is only shown to occur within the cutoff walls for each Unit. Provide a groundwater modeling analysis with an accurate infiltration scenario to investigate the potential of groundwater mounding in between the two center cut-off walls between the containment and auxiliary buildings of Units 6&7.