

## TurkeyPointRAIsPEm Resource

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**From:** Comar, Manny  
**Sent:** Tuesday, July 05, 2011 1:26 PM  
**To:** TurkeyPointRAIsPEm Resource  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 026 RELATED TO SRP  
02.02.03 EVALUATION OF POTENTIAL ACCIDENTS FOR THE TURKEY POINT PLANT  
UNITS 6 AND 7  
**Attachments:** PTN-RAI-LTR-026.doc

**Hearing Identifier:** TurkeyPoint\_COL\_eRAIs  
**Email Number:** 30

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D0774B99007A)

**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 026 RELATED TO SRP 02.02.03 EVALUATION OF POTENTIAL ACCIDENTS FOR THE TURKEY POINT PLANT UNITS 6 AND 7

**Sent Date:** 7/5/2011 1:25:31 PM

**Received Date:** 7/5/2011 1:25:32 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

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PTN-RAI-LTR-026.doc	56314	

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

July 5, 2011

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. 026 RELATED  
TO SRP SECTION 02.02.03 EVALUATION OF POTENTIAL ACCIDENTS  
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 and December 21, 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 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 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. 5653

Enclosure:  
Request for Additional Information

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NRO-002

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NAME	DBrown*	MComar*	BWeisman*	MComar*
DATE	5/31/11	6/2/11	6/21/11	7/5/11

\*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**

Request for Additional Information No. 5653

7/5/2011

Turkey Point Units 6 and 7

Florida P and L

Docket No. 52-040 and 52-041

SRP Section: 02.02.03 - Evaluation of Potential Accidents

Application Section: 2.2.3

QUESTIONS from Siting and Accident Conseq Branch (RSAC)

02.02.03-1

Pursuant to 10 CFR sections 52.79(a)(1)(iv) and 52.79(a)(1)(vi), a COL application must contain a final safety analysis report (FSAR) that shall include, among other things, the location and description of any nearby industrial, military, or transportation facilities and routes, and a description and safety assessment of the site on which the facility is to be located, including site characteristics that comply with site criteria in 10 CFR 100.

With respect to onsite or offsite storage of hazardous chemicals, guidance on these regulations is provided in RG 1.206, Section C.I.2.2.3, "Evaluation of Potential Accidents," which states that applicants should determine, on the basis of information provided in FSAR Sections 2.2.1 and 2.2.2, the potential accidents to be considered as design basis accidents and identify the potential effects of those accidents on the nuclear plant in terms of design parameters or physical phenomena.

For COL applicants referencing the AP1000 DCD, COL information item 2.2-1 states, among other things, that COL applicants referencing the AP1000 certified design will provide site-specific information related to the identification of potential hazards within the site vicinity. Safe distances for material in onsite storage facilities that are part of the standard design are included in AP1000 DCD Table 2.2-1, and COL applicants are expected to verify that the locations and size of the storage facilities are consistent with the safe distances defined by the AP1000 certified design.

The staff requests the following additional information regarding PTN COL FSAR Section 2.2.3.

- a. Revise the COL FSAR to include an explanation of how safe separation distances for standard chemicals listed in AP1000 DCD Table 2.2-1 are met at the PTN site.
- b. COL FSAR Table 2.2-202 lists a hydrogen gas inventory of one 40,000 standard cubic feet tube trailer located in the PGS area for Units 6 & 7. Footnote (a) of COL FSAR Table 2.2 -213, "Design Basis Events – Explosions" states that simultaneous detonation of all the tubes in the tube trailer "is not a likely scenario." The applicant explains that it assumed that one-third of the tubes could rupture, which yields a safe distance of 544 feet, as compared to a distance of 560 feet to the nearest safety-related structure, which leaves a margin of 16 feet. As stated in the AP1000 DCD, Section 2.2, "The determination of the probability of occurrence of potential accidents which could have severe consequences will be based on analyses of available statistical data on the occurrence of the accident together with analyses of the effects of the accident on the plant's safety-related structures and components." Justify why there is an acceptably low probability of occurrence of an accident ( $< 10^{-6}$  probability

of occurrence per year) which involves simultaneous rupture of more than one-third of the tubes, detonation of the hydrogen gas, and a radiological dose in excess of the limits in 10 CFR 50.34(a)(1). Revise the COL FSAR, as appropriate.