

## **PMTurkeyCOLPEm Resource**

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**From:** Comar, Manny  
**Sent:** Monday, August 15, 2011 11:39 AM  
**To:** Anderson, Brian; Comar, Manny; Cruz, Jeffrey; Galletta, Thomas; Goldstein, Kay; Green, Sharon; Habib, Donald; Hughes, Brian; Joshi, Ravindra; McGovern, Denise; Minarik, Anthony; Misenhimer, David; Sebrosky, Joseph; Wade, Tony; orthen, Richard; Raymond Burski; Steve Franzone; STEVEN.HAMRICK; TurkeyCOL Resource; William Maher; RidsAcrsAcnw\_MailCTR Resource; RidsNroDnrlNwe1 Resource; RidsNroLAKGoldstein Resource; RidsOgcMailCenter Resource; RidsRgn2MailCenter Resource  
**Cc:** Williams, Kevin; Musico, Bruce; Barss, Dan  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 35 RELATED TO SRP SECTION 13.03 FOR THE TURKEY POINT UNITS 6 AND 7 COMBINED LICENSE APPLICATION  
**Attachments:** PTN-ltr-035-rai5681.pdf

All:

Attached is the RAI letter No. 35 related to SRP Section: 13.03 – Emergency Planning for the Turkey Point Units 6 and 7 Combined License Application.

The Accession number is ML11227A063

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

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

**Hearing Identifier:** TurkeyPoint\_COL\_Public  
**Email Number:** 420

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D07D4FDBEC3A)

**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 35 RELATED TO  
SRP SECTION 13.03 FOR THE TURKEY POINT UNITS 6 AND 7 COMBINED LICENSE APPLICATION  
**Sent Date:** 8/15/2011 11:39:29 AM  
**Received Date:** 8/15/2011 11:39:32 AM  
**From:** Comar, Manny

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

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

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
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PTN-ltr-035-rai5681.pdf		135531

**Options**

<b>Priority:</b>	Standard
<b>Return Notification:</b>	No
<b>Reply Requested:</b>	No
<b>Sensitivity:</b>	Normal
<b>Expiration Date:</b>	
<b>Recipients Received:</b>	

## TurkeyPointRAIsPEm Resource

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**From:** Comar, Manny  
**Sent:** Monday, August 15, 2011 10:44 AM  
**To:** TurkeyPointRAIsPEm Resource  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 35 RELATED TO SRP  
SECTION 13.03 FOR THE TURKEY POINT UNITS 6 AND 7 COMBINED LICENSE  
APPLICATION  
**Attachments:** PTN-RAI-LTR-035.doc

**Hearing Identifier:** TurkeyPoint\_COL\_eRAIs  
**Email Number:** 40

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D07D4FDBEBD7)

**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 35 RELATED TO  
SRP SECTION 13.03 FOR THE TURKEY POINT UNITS 6 AND 7 COMBINED LICENSE APPLICATION  
**Sent Date:** 8/15/2011 10:44:26 AM  
**Received Date:** 8/15/2011 10:44:27 AM  
**From:** Comar, Manny

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

**Recipients:**  
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Tracking Status: None

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

Files	Size	Date & Time
MESSAGE	8	8/15/2011 10:44:27 AM
PTN-RAI-LTR-035.doc	91642	

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

August 15, 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. 035 RELATED  
TO SRP SECTION 13.03. EMERGENCY PLANNING 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. 5681

Enclosure:  
Request for Additional Information

Distribution:

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AMinarik	DBarss	BMusico
DMisenhimer		

NRO-002

OFFICE	DDEP/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	KWilliams*	MComar*	BWeisman	MComar*
DATE	6/29/11	7/13/11	7/26/11	7/26/11

\*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**



Request for Additional Information No. 5681  
8/15/2011

Turkey Point Units 6 and 7  
Florida P and L  
Docket No. 52-040 and 52-041  
SRP Section: 13.03 - Emergency Planning  
Application Section: Part 5: Emergency Planning

QUESTIONS for Licensing and Inspection Branch (NSIR/DPR/LIB) (EP)

13.03-5

**SITE-2:** Onsite Emergency Organization

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(2), Section IV.A.2.c of Appendix E to 10 CFR Part 50, NUREG-0654, Evaluation Criteria B.5, B.6, and B.7]

**RAI B-1.** Discuss whether corporate management, administrative, and technical support personnel will be used to augment the plant staff and interface with governmental authorities.

**RAI B-2.** COLA Part 5 Section B.1, "On-Shift Emergency Response Organization Assignments,"

contains paragraphs that address the assignments of various emergency response positions. The positions for control room operators, auxiliary operators, and radiation protection and chemistry personnel refer to staffing levels as defined in Technical Specifications. In addition, Section 2.2, "Normal Shift Staffing," in COLA Part 5 Annexes 2 and 3 indicates that the Shift Technical Advisor (STA) may not always be on duty, while Tables 2-1, "Turkey Point Emergency Response Organization On-Shift Staffing," in Annexes 2 and 3 identifies the STA as the individual responsible for offsite dose assessment. Even though Technical Specifications may allow relief for staffing some positions when a unit is shutdown or defueled, on-staff is needed in all operating modes of operation to respond in the event of an emergency. Discuss the controls in place to ensure the assigned emergency response organization will be available in all modes, or revise Section B.1 to refer to the staffing levels in Table B-1a, "Shift Emergency Response Organization," in Annexes 2 and 3, rather than in Technical Specifications.

**RAI B-3.** COLA Part 5 Section B.1 also addresses the Shift Communicator position (typically the unaffected unit SRO

or another licensed operator). Discuss how one Shift Communicator can notify plant personnel, State and local agencies, and the NRC (including maintaining an open, continuous communication channel upon NRC request), in addition to performing other potential communications tasks while meeting time requirements during an escalating emergency?

**RAI B-4.** For COLA Part 5 Annexes 2 and 3, discuss the tasks expected to be performed by the Senior Reactor

Operator (SRO) and the STA (who is also responsible for offsite dose assessment in Table 2-1). Address how the individual filling the dual role of SRO and STA can perform all of the tasks associated with both positions during an emergency.

**RAI B-5.** NUREG-0654 Table B-1 identifies the need for six additional personnel to perform offsite and onsite (out-of-plant) surveys within 30 to 60 minutes. In Table B-1a of Annexes 2 and 3, clearly identify the number of personnel from unaffected units who will be available to perform offsite and onsite (out-of-plant) surveys.

**RAI B-6.** NUREG-0654 Table B-1 identifies the need for two additional personnel to perform in-plant surveys within 30 to 60 minutes. In Table B-1a of Annexes 2 and 3, clearly identify the number of personnel available to perform in-plant surveys until additional support arrives within about 90 minutes. In addition, Table B-1a identifies a minimum staff size of two for in-plant surveys. Discuss how the third position called for in NUREG-0654 Table B-1 will be filled with on-shift staff.

**RAI B-7.** NUREG-0654 Table B-1 identifies the need for an individual with Senior Health Physics expertise to perform offsite dose assessment within about 30 minutes. Discuss how this expertise will be provided by on-shift personnel until expertise arrives in about 90 minutes. In Table B-1a of Annexes 2 and 3, clearly identify the on-shift individual with Senior Health Physics expertise.

**RAI B-8.** NUREG-0654 Table B-1 identifies the need for five additional personnel to perform the maintenance, electrical and instrumentation and controls repair and corrective action functions within 30 to 60 minutes. Discuss how the three personnel identified in Table B-1a in Annexes 2 and 3 will compensate for the five additional individuals identified in NUREG-0654 Table B-1 until additional support arrives within about 90 minutes. In Table B-1a of Annexes 2 and 3, clearly identify the number of personnel available to perform repair and corrective actions (including mechanical maintenance/rad waste operator, and electrical maintenance/instrumentation and control), until support personnel arrive within about 90 minutes.

**RAI B-9.** NUREG-0654 Table B-1 identifies the need for three additional personnel to perform the core/thermal hydraulics and electrical and mechanical technical support functions within 30 to 60 minutes. Discuss how the STA identified in Table B-1a in Annexes 2 and 3 will compensate for the three additional individuals identified in NUREG-0654 Table B-1, until additional support arrives within about 90 minutes. In Table B-1a of Annexes 2 and 3, clearly identify the number of personnel available to perform technical support (including core/thermal hydraulics, and electrical and mechanical functions) within about 90 minutes.

**RAI B-10.** Table 2-1, "Turkey Point Emergency Response Organization On-Shift Staffing," in Annex 2 identifies in footnote (a) that offsite and onsite

surveys will be performed by (RP Technician) responders from an unaffected Unit. After fuel is loaded into Unit 6, will personnel from Units 3 and 4 support the response to an event at Unit 6? If they will, discuss in Annex 2 how personnel from Units 3 and 4 will maintain their knowledge of the Units 6 and 7 site, in order to perform their onsite and offsite survey tasks until Unit 7 is completed?

**RAI B-11.** Table B-1b, "Staffing Requirements for the Turkey Point Plant Emergency Response Organization," indicates "90-Minute Augmentation" under the Facility Staffing column. For purposes of Units 6 and 7, explain the basis for the 90-minute augmentation time in Table B-1b, as compared to Table B-1 of NUREG-0654/FEMA-REP-1. Revise Table B-1b to be consistent with Table B-1, or explain why this is not required.

**RAI B-12.** COL Part 5 (Emergency Plan) includes Annex 1, which addresses the existing Turkey Point Units 3 and 4. Footnote (f) of Table B-1b states in part that "[a]ll shift ERO positions are listed in Table B-1a, contained in unit specific annexes." This includes Annex 1 for Units 3 and 4. Table 2-2a, "Shift and Emergency Staffing Capabilities," of the Turkey Point Plant Radiological Emergency Plan (Revision 47, approved March 25, 2008) identifies "30 min." and "60 min." as augment staffing capabilities and references Table B-1 of NUREG 0654 as the related guidance. Please address whether the COL application is requesting approval to extend the augmentation times from 30 and 60 minutes to 90 minutes for Units 3 and 4 when the COL emergency plan is put into effect. Note that any proposed changes related to Turkey Point Unit 3 and 4 should be in accordance with 10 CFR 50.54(q) and submitted in accordance with applicable processes as a licensing action associated with those units, including appropriate justification as specified in the "Smart Application Template for Requesting Emergency Plan Changes Related to On-shift Staffing Levels and Augmentation Times," ADAMS Accession No. ML042530011. Additional guidance can be found in RIS 2005-002, "Clarifying the Process for Making Emergency Plan Changes," ADAMS Accession No. ML042580404. (See also, Southern Nuclear Operating Company's April 16, 2007, response to RAI Question 13.3-8 (AR-07-0656) (ADAMS Accession No. ML071100330); October 15, 2007, response to Safety Evaluation Report Open Item 13.3-2 (AR-07-1773); and issue discussion in NUREG-1923, Subsection 13.3.2.2, "Onsite Emergency Organization," pages 13-22 through 13-24 (July 2009, ADAMS Accession No. ML092290650).)

13.03-6

**SITE-4: Emergency Classification System**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(4), Section IV.B of Appendix E to 10 CFR Part 50]

The initial emergency action levels (EALs), that are required by 10 CFR 50.47(b)(4) and Section IV.B of Appendix E to 10 CFR Part 50, must be approved by the NRC. The Turkey Point combined license (COL) application does not fully address certain aspects of the required EAL scheme, because various equipment set points and other

information cannot be determined until the as-built information is available (e.g., head corrections, radiation shine, final technical specifications, and equipment calculations and tolerances). The NRC evaluated possible options to ensure applicants address the regulations, and identified the following two acceptable options:

Option 1 – Submit an entire EAL scheme, which contains all site-specific information, including set points. Until this information is finalized, EALs will remain an open item.

Option 2 – Submit Emergency Plan Section D, “Emergency Classification System,” which addresses the four critical elements of an EAL scheme (listed below).

- *Critical Element 1* – Applicant proposes an overview of its emergency action level scheme including defining the four emergency classification levels, (i.e., Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency), as stated in NEI 99-01, Revision 5, with a general list of licensee actions at each emergency classification level.
- *Critical Element 2* – Applicant proposes to develop the remainder of its EAL scheme by using a specified NRC endorsed guidance document. In the development of its EALs, the proposed EALs should be developed with few or no deviations or differences, other than those attributable to the specific reactor design. NEI 07-01, Revision 0, applies to the AP1000 and ESBWR passive reactor designs, and NEI 99-01, Revision 5, applies to all non-passive reactor designs. If applicable, EALs related to digital instrumentation and control must be included.
- *Critical Element 3* – Applicant proposes a license condition, which requires that the licensee create a fully developed set of plant-specific EALs, in accordance with the specified guidance document, that have been discussed and agreed upon with State and local officials, and submit the EALs to the NRC for confirmation at least 180 days prior to initial fuel load.
- *Critical Element 4* – Applicant proposes to maintain the EALs in a document that is controlled by the 10 CFR 50.54(q) change process (e.g., in the Emergency Plan or a lower tier document, such as Emergency Plan Implementing Procedures).

Please review the two options provided above, identify the chosen option, and provide the required EAL information.

13.03-7

#### **SITE-5:** Notification Methods and Procedures

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(5), Sections IV.D.1 and IV.A.4 (3 of 4) of Appendix E to 10 CFR Part 50, NUREG-0654, Evaluation Criteria E.1, E.4, and E.6.]

**RAI E-1.** COLA Part 5 Section E.2, “Notification and Mobilization of Emergency Response Personnel,” describes the means for notifying local, State, and Federal officials and agencies. Identify in the Emergency Plan the appropriate officials (by title and agency) of the local, State, and tribal government agencies that are within the 10-mile plume exposure pathway EPZ and 50-mile ingestion pathway EPZ, and who will be notified of an emergency.

**RAI E-2.** COLA Part 5 Section E.4, “Follow-Up Messages,” states that projected doses at the site boundary and at 2, 5, and 10 miles will be provided to State and county authorities on a prearranged frequency. Describe in the Emergency Plan how this information is included in follow-up messages to offsite authorities. If this is not required, explain why.

**SITE 8: Emergency Facilities and Equipment**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(8), Section IV.E of Appendix E to 10 CFR Part 50, NUREG-0654 Evaluation Criteria H.1, H.4, H.5 and H.6, Supplement 1 to NUREG-0737 (Subsections 6.1.c, 8.2.1.b, 8.2.1.h, and 8.4.1.g)]

**RAI H-1.** COLA Part 5 Section H.1.b states that the location of the Technical Support Center (TSC) is outside of the Protected Areas between the Control Room for Units 3 & 4 and the Control Rooms for Units 6 & 7. The guidance in Section 8.2.b of Supplement 1 to NUREG-0737 states that the TSC will be located within the site protected area so as to facilitate necessary interaction with the control room, OSC, EOF and other personnel involved with the emergency. Provide the justification for locating the TSC outside of the Protected Area, and describe any impediments (e.g., protected area security controls) that could impact or delay the transit time between the TSC and Control Rooms. In addition, discuss communication capabilities that compensate for the increased distance and transit time between the TSC to the Control Rooms.

**RAI H-2.** Describe in the Emergency Plan how the plant parameter variables based on the guidance provided in Regulatory Guide 1.97 are made available in the TSC.

**RAI H-3.** COLA Part 5 Section H.6, "Monitoring Equipment Onsite," states in Subsection H.6.c.2 that the Safety Parameter Display System (SPDS) provides a display of plant parameters from which the safety status of plant operation may be assessed in the Control Room, TSC, and EOF for the plant. Describe in the Emergency Plan or FSAR the plant parameter variables of the SPDS, and discuss whether those plant parameter variables are based on the guidance provided in Regulatory Guide 1.97.

**RAI H-4.** COLA Part 5 Section H.1.b, "Technical Support Center (TSC)," states on page H-4 that "[a]fter TSC activation, if it becomes uninhabitable for any reason, the TSC functions will transfer to the EOF if it is activated. If the EOF has not activated, the TSC function will be transferred back to the affected unit Control Room until the EOF can assume those functions." In contrast, NRC guidance document NUREG-0696, "Functional Criteria for Emergency Response Facilities," states in Section 2.6, "Habitability," that "[i]f the TSC becomes uninhabitable, the TSC plant management function shall be transferred to the control room." Describe how COLA Part 5 Section H.1.b comports with the applicable guidance criteria in NUREG-0696, and revise the Emergency Plan, if appropriate. (See also, Dominion Virginia Power's November 24, 2008, response to RAI Question 13.03-2.13, Serial No. NA3-08-087RA (ADAMS Accession No. ML083330286)).

13.03-9

**SITE-10: Protective Response**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(10), Sections III and IV of Appendix E to 10 CFR Part 50, NUREG-0654 Evaluation Criteria J.1, J.3, J.10.a, and J.10.m]

- RAI J-1.** In the Emergency Plan, describe the time required to warn or advise onsite individuals and individuals who may be in areas controlled by the operator.
- RAI J-2.** Provide a map in the Emergency Plan that shows the location of the designated offsite assembly areas for personnel evacuating the site. If the assembly areas are not under the applicant's control, provide letters of agreement or other appropriate documentation that addresses their availability during an emergency.
- RAI J-3.** Provide a map in the Emergency Plan that shows the pre-selected radiological sampling and monitoring points. The map should include the designators in NUREG-0654 Table J-1, or an equivalent uniform system described in the Emergency Plan.
- RAI J-4.** COLA Part 5 Section J.10(e) states that EPA 400-R-92-001 and NUREG-0654 (Supplement 3) provide the basis for the general protective action recommendations (PARs), which may include sheltering or evacuation. Describe in the Emergency Plan how the Evacuation Time Estimate (ETE) is used in determining the choice of recommended protective actions for the 10-mile plume exposure pathway during emergency conditions.
- RAI J-5.** COLA Part 5 Section J.10(e) states that many assumptions exist in dose assessment calculations, involving both source term and meteorological factors, which make computer predictions over long distances suspect. In addition, it states that plant personnel normally do not have the necessary information to determine whether offsite conditions would require sheltering instead of evacuation. This appears to contradict Figure J-2 (Sheets 1 of 3 and 2 of 3), which provides protective action recommendations (PARs) that include sheltering ("S") and evacuation ("E"). Explain how the results generated in the dose assessment are conveyed to offsite response organizations, including how the many assumptions are understood by those organizations. In addition, resolve the apparent contradiction between Section J.10(e) and Figure J-2, in regard to shelter and evacuation recommendations. If appropriate, revise the Emergency Plan to clearly indicate how specific PARs are determined and conveyed to offsite response organizations.

13.03-10

**SITE-11: Radiological Exposure Control**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(11), NUREG-0654 Evaluation Criteria K.3.b and K.5.a]



**RAI K-1.** COLA Part 5 Section K.3, "Personnel Monitoring," states that emergency worker dose records are maintained by the Radiation Protection Manager (as appropriate) in accordance with the emergency and radiological protection procedures. Emergency Plan Appendix 3, "Procedure Cross-Reference to the Emergency Plan," does not list an implementing procedure that addresses this Emergency Plan section (e.g., K.3.b). Identify the implementing procedure and revise the Emergency Plan to include its reference or description, or explain why this is not required.

**RAI K-2.** In the Emergency Plan, provide the action levels used for determining the need for decontamination.

13.03-11

**SITE-14:** Exercises and Drills

[Basis: 10 CFR 52.47(a)(21), 10 CFR 50.47(b)(14), Section IV.E.9(b) of Appendix E to 10 CFR Part 50]

**RAI N-1.** Describe in the Emergency Plan the testing frequency for the Emergency Response Data System (ERDS).

13.03-12

**SITE-15:** Radiological Emergency Response Training

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(15), NUREG-0654 Evaluation Criteria O.1, O.1.a and O.4.a]

**RAI O-1.** Describe in the Emergency Plan the establishment of a training program that includes specialized training and periodic retraining of (1) Directors and/or coordinators; (2) personnel responsible for accident assessment, including control room shift personnel; (3) radiological monitoring teams; (4) fire control teams; (5) repair and damage control teams; (6) first aid and rescue teams; (7) the licensee's headquarters support personnel; (8) security personnel; and (9) personnel responsible for transmission of emergency information and instructions.

13.03-13

**SITE-16:** Responsibility for Planning Effort: Development, Periodic Review, and Distribution of Emergency Plans.

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(16), NUREG-0654 Evaluation Criteria P.6 and P.9]

**RAI P-1.** COLA Part 5 Section P.6, "Supporting Emergency Response Plans," contains a listing of supporting plans. Add the appropriate county supporting plans to the list of supporting plans.

**RAI P-2.** COLA Part 5 Section P.9, "Audit/Assessment of the Emergency Preparedness Program," states that reviews of audits will be submitted to management.

Describe in the Emergency Plan the retention of the results of independent reviews of the emergency preparedness program, including whether recommendations for improvement will be retained for a period of five years.

13.03-14

**SITE-17: Hostile Action Considerations**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47, Appendix E to 10 CFR 50.47, Appendix E to 10 CFR Part 50; Regulatory Guide 1.206, Section C.I.13.3.1]

- a. Regulatory Guide 1.206 states in Section C.I.13.3, "Emergency Planning," that applicants for a combined license should address the Commission Orders issued February 25, 2002, relating to security events. NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," provides guidance for identifying alternative facilities to support emergency response organization augmentation during hostile action events. Describe in the Emergency Plan an alternative facility to support rapid response to a hostile action event, or provide a reference to where this information is contained. If this information is not required, explain why. As stated in NRC Bulletin 2005-02, the alternative facility should include the following characteristics:
  - o Accessibility even if the site is under threat or attack;
  - o Communication links with the emergency operations facility, control room, and security;
  - o Capability to notify offsite response organizations if the Emergency Operations Facility (EOF) is not performing this action; and
  - o Capability for engineering and damage control teams to begin planning mitigative actions (e.g., general drawings and system information)
- b. NRC Bulletin 2005-02 provides guidance for onsite protective measures for site workers during hostile action events. Describe in the Emergency Plan specific provisions to protect onsite emergency responders and personnel during emergencies resulting from hostile action events, or provide a reference to where this information is contained. If this information is not required, explain why. As stated in NRC Bulletin 2005-02, these provisions may include the following:
  - o Evacuation of personnel from target buildings (including security personnel),
  - o Site evacuation by opening security gates (while continuing to defend),
  - o Dispersal of licensed operators,
  - o Sheltering of personnel in structures away from potential site targets, and
  - o Arrangements for accounting for personnel after the attack
- c. NRC Bulletin 2005-02 provides guidance for the licensee's prompt notification of the NRC during a security event, in order to enable NRC to warn other licensees of a potential security threat, and to inform other Federal agencies pursuant to the National Response Plan. This notification by the licensee should not be construed to imply that immediate notifications to local law enforcement will be adversely affected, or that the required licensee notification to State and local government agencies within 15 minutes after declaring an emergency will be changed. Describe in the Emergency Plan how the notification to the NRC of a hostile action based event would occur (e.g., immediately after notification of local law enforcement agencies, or within about 15 minutes following its recognition), or provide a reference to where this information is contained. If this information is not required, explain why.



13.03-15

**SITE-18: Emergency Plan Considerations for Multi-Unit Sites**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47, Regulatory Guide 1.206, Section C.I.13.3.2] Regulatory Guide 1.206 states in Section C.I.13.3.2, "Emergency Plan Considerations for Multi-unit Sites," that if the new reactor is located on, or near, an operating reactor site with an existing emergency plan (i.e., multiunit site), and the emergency plan for the proposed new reactor includes various elements of the existing plan, the applicant should do the following:

(1) Address the extent to which the existing site's emergency plan is credited for the new unit(s), including how the existing plan would be able to adequately accommodate an expansion to include one or more additional reactors and include any required modification of the existing emergency plan for staffing, training, emergency action levels, and the like.

(2) Include a review of the proposed extension of the existing site's emergency plan pursuant to 10 CFR 50.54(q), to ensure that the addition of a new reactor(s) would not decrease the effectiveness of the existing plans and the plans, as changed, would continue to meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50.

(3) Describe any required updates to existing emergency facilities and equipment, including the alert notification system.

(4) Incorporate any required changes to the existing onsite and offsite emergency response arrangements and capabilities with State and local authorities or private organizations.

(5) Justify the applicability of the existing 10-mile plume exposure EPZ and 50-mile ingestion control EPZ.

(6) Address the applicability of the existing ETE or provide a revised ETE, if appropriate.

(7) If applicable, address the exercise requirements for collocated licensees, in accordance with Section IV.F.2.c of Appendix E to 10 CFR Part 50, and the conduct of EP activities and interactions discussed in RG 1.101.

(8) If applicable, include ITAAC which would address any changes to the existing emergency plans, facilities and equipment, and programs that are to be implemented, along with a proposed schedule.

(9) Describe how emergency plans, to include security, is integrated and coordinated with emergency plans of adjacent sites.

Please discuss how and/or where each of the nine elements listed above is addressed in the COL application. If appropriate, revise the application (e.g., Emergency Plan or FSAR) to reflect your responses.

13.03-16

**SITE-19: FSAR Table 13.4-201, Item 14, Emergency Planning**

Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47, 10 CFR 30.32(i)(1)(i) and (ii), 10 CFR 40.31(j)(1)(i) and (ii), 10 CFR 70.22(i)(1)(i) and (ii)]

- A. Identify the physical form of the byproduct material that will be received, possessed, or used at Units 3 and 4. If the byproduct material is in unsealed form, on foils or plated sources, or sealed in glass, does it exceed the quantities in Schedule C in 10 CFR 30.72? If the quantities exceed Schedule C, provide

- either (1) an evaluation showing the maximum dose to a person offsite would not exceed 1 rem effective dose equivalent or 5 rems to the thyroid (see 10 CFR 30.32(i)(2)), or (2) an emergency plan that meets the requirements of 10 CFR 30.32(i)(3). If compliance through the requirements of 10 CFR 30.32(i)(3) is chosen, discuss how the implementation of the emergency plan prior to the receipt of byproduct material will be accomplished. If appropriate, revise FSAR Table 13.4-201, "Operational Programs Required by NRC Regulations," to reflect the emergency plan implementation.
- B. Pursuant to 10 CFR 40.31(j)(1), discuss whether the request for a 10 CFR Part 40 license involves authorization to receive, possess, or use uranium hexafluoride in excess of 50 kilograms in a single container or 1000 kilograms total? If either of these two quantities of uranium hexafluoride are exceeded, provide either (1) an evaluation showing that the maximum intake of uranium by a member of the public due to a release would not exceed 2 milligrams (see 10 CFR 40.31(j)(2)), or (2) an emergency plan for responding to the radiological hazards of an accidental release of source material and to any associated chemical hazards directly incident thereto (see 10 CFR 40.31(j)(3)).
- C. 10 CFR 70.22(i)(1) states that each application to possess enriched uranium or plutonium for which a criticality accident alarm system is required, uranium hexafluoride in excess of 50 kilograms in a single container or 1000 kilograms total, or in excess of 2 curies of plutonium in unsealed form or on foils or plated sources, must contain either (1) an evaluation showing that the maximum dose to a member of the public offsite due to a release of radioactive materials would not exceed 1 rem effective dose equivalent or an intake of 2 milligrams of soluble uranium (see 10 CFR 70.22(i)(2)), or (2) an emergency plan for responding to the radiological hazards of an accidental release of special nuclear material and to any associated hazards directly incident thereto (see 10 CFR 70.22(i)(3)). Discuss whether an exemption from 10 CFR 70.24 will be requested regarding the installation of a criticality accident alarm system. If a criticality accident alarm system will not be installed, and an exemption is not requested, provide either (1) the required evaluation identified above (see 10 CFR 70.22(i)(1)(i)), or (2) a discussion as to how an emergency plan that meets the requirements of 10 CFR 70.22(i)(3) will be implemented to support the receipt, possession, and use of enriched uranium. For the emergency plan option, discuss how the requirements of 10 CFR 70.22(i)(3)(xiii) and 10 CFR 70.22(i)(4) are (or will be) met. Finally, update FSAR Table 13.4-201 to reflect your response, if appropriate.