

VoglecolRAIsPEm Resource

From: Brian Anderson
Sent: Friday, March 06, 2009 2:05 PM
To: VoglecolRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 029 RELATED TO SRP
SECTION 13.3 FOR THE VOGTLE ELECTRIC GENERATING PLANT
Attachments: VOG-RAI-LTR-029.doc
Importance: High

Hearing Identifier: Vogtle_COL_eRAIs
Email Number: 32

Mail Envelope Properties (CB87FC66F95637428C5E0D066E756B6FABAE4B8764)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 029 RELATED TO
SRP SECTION 13.3 FOR THE VOGTLE ELECTRIC GENERATING PLANT
Sent Date: 3/6/2009 2:04:33 PM
Received Date: 3/6/2009 2:04:34 PM
From: Brian Anderson

Created By: Brian.Anderson@nrc.gov

Recipients:
"VogtlecolRAIsPEm Resource" <VogtlecolRAIsPEm.Resource@nrc.gov>
Tracking Status: None

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Files	Size	Date & Time
MESSAGE	3	3/6/2009 2:04:34 PM
VOG-RAI-LTR-029.doc	72698	

Options
Priority: High
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
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March 6, 2009

Mr. Joseph A. (Buzz) Miller
Senior Vice President
Southern Nuclear Operating Company
P.O. Box 1295
Birmingham, AL 35201

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 029 RELATED TO
SRP SECTION 13.3 FOR THE VOGTLE ELECTRIC GENERATING PLANT
UNITS 3 AND 4 COMBINED LICENSE APPLICATION

Dear Mr. Miller:

By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC), 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 changes are needed to the final safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967 or you may contact Christian Araguas, the lead project manager for the Vogtle Electric Generating Plant combined license at 301-415-3637.

Sincerely,

/RA/

Brian C. Anderson, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-025
52-026

eRAI Tracking No. 2087

Enclosure:
Request for Additional Information

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967 or you may contact Christian Araguas, the lead project manager for the Vogtle Electric Generating Plant combined license at 301-415-3637.

Sincerely,

/RA/

Brian C. Anderson, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-025
52-026

eRAI Tracking No. 2087

Enclosure:
Request for Additional Information

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NAME	KWilliams *	BAnderson *	AHodgdon*	CAraguas*
DATE	02/02/09	02/06/09	02/20/09	03/06/09

*Approval captured electronically in the electronic RAI system.

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**Request for Additional Information
Vogtle Units 3 and 4
Southern Nuclear Operating Co.
Docket No. 52-0025 and 52-0026
SRP Section: 13.03 - Emergency Planning
Application Section: Part 5-Emergency Planning**

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

13.03-1

[Basis: 10 CFR 52.79(a)(21), 10 CFR 52.79(b)(8), Section IV.E of Appendix E to 10 CFR Part 50]

COL Application (COLA) Part 7, "Departures, Exemptions, and Variances," Revision 0, states in Section A, "STD and VEGP Departures" (page 1), that "Departure number VEGP DEP 18.8-1 is a change to Tier 2* information in the DCD, and prior NRC approval is required. The change is described and evaluated in the VEGP Units 3 and 4 ESPA Part 5 (Emergency Plan)." ESPA Part 5, "Emergency Plan" (Revision 4, March 2008, page H-1), states (in part) in Section H.1.1, "Technical Support Center (TSC)," that "[t]he TSC will be located in the lower level of an administration building sited between the Unit 2 and 3 power blocks within the VEGP Site protected area as shown on Figure ii." Figure ii, "Vogtle Electric Generating Plant Site Plan," is provided on page x of Part 5.

Figure ii, which shows the entire VEGP site on a very small figure, does not allow the identification of the TSC's specific location in regard to other significant site features. Figure 13.3-2, "VEGP Site Map," in the Vogtle ESP application (Part 2, Revision 0, August 2006, page 13.3-12) is somewhat clearer, yet also does not show the TSC's detailed location in relation to other major site structures and security boundaries.

Please provide a readable figure(s) (and description, if appropriate) that clearly shows the proposed TSC location in relation to the site's significant features and structures, including Units 1 through 4 power blocks, and major security barriers/boundaries and checkpoints. In addition, provide the TSC's approximate distance (in feet/meters) from the site's vital areas.

13.03-2

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(8), Section IV.E of Appendix E to 10 CFR Part 50]

VEGP DEP 18.8-1 (FSAR page 1.8-2) states in part that the Operations Support Center (OSC) location is as described in the Emergency Plan. Section V2 H.1, "Emergency Facilities," of ESP application Part 5, "Emergency Plan," states that "[t]he OSCs are located on the second floor of the Annex building adjacent to the Unit 3 and 4 Control Rooms." DCD Subsection 18.8.3.6 states that the OSC location is shown in (withheld) Figure 1.2-18, "Annex Building General Arrangement Plan at Elevation 100'-0" & 107'-2" (emphasis added). Further, COL application Part 7 Departure Number DEP 18.8-1 (page 9) states in part (under Departure Justification) the following:

The referenced DCD also states "The ALARA briefing and operational support center is located off the main corridor immediately beyond the main entry to the annex building"

and indicates that the OSC location is identified on Figure 1.2-18. At VEGP Units 3 and 4, the OSC is located in the Unit 3 and 4 control support areas, vacated by relocating the unit TSCs to a common site TSC, to better utilize the available space.

In AP1000 DCD Revision 16, the TSC has a (Tier 2*) location of the Control Support Area (CSA), which is identified in (withheld) Figure 1.2-19, "Annex Building General Arrangement Plan at Elevation 117'-6" & 126'-3" (emphasis added). Section 13.3 of NUREG-1793 identifies the OSC as located in Room 40318, and the TSC (CSA in DCD Revision 16) as located in Room 40403, adjacent to the passage from the annex building to the nuclear island control room.

Due to the elevation difference between the two figures (identified above for the OSC and TSC), the statement that the OSC is located in the CSA, and references both the OSC and TSC locations as being "adjacent" to the control room, the location of the OSC cannot be determined. For example, is the OSC location being moved from the second floor (100'-0") to the former TSC location (i.e., the CSA) (117'-6"), or will the OSC remain in a location below the CSA floor level?

Please clarify by describing the specific OSC location for both Units 3 and 4 (e.g., floor level and room number), including the location of the designated backup OSC space in the ALARA briefing room (described in Annex V2 of Part 5, Section V2H.1, "Emergency Facilities," page V2H-1).

13.03-3

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

COL application Part 2 (FSAR) Section 13.3.8, "ESP COL ACTION ITEMS," addresses emergency action levels (EALs) in relation to VEGP ESP COL 13.3-1 and 13.3-2. EALs are further discussed in Section D, "Emergency Classification System," of COL application Part 5.

The initial EALs, which 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 Vogtle combined license (COL) application does not fully address certain aspects of the required EAL scheme. This is 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 has been evaluating possible options to ensure applicants address the regulations and provide the following:

Option 1 – Submit an entire EAL scheme, which contains all site-specific information, including set points. Until this information is finalized, EALs would 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). The NRC will determine the acceptability of the EAL scheme.

- *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, if endorsed, will be applicable to the AP1000 and ESBWR (passive) reactor designs, and NEI 99-01 is applicable to all (non-passive) reactor designs. If applicable, EALs related to digital instrumentation and control must be included. The NRC must find in the Safety Evaluation Report that this approach is acceptable for each site.
- *Critical Element 3* – Applicant proposes a License Condition (LC) that the applicant will create a fully developed set of EALs in accordance with the specified guidance document. These fully developed EALs must be submitted to the NRC for confirmation at least 180 days prior to fuel load.
- *Critical Element 4* – The EALs must be kept in a document controlled by 10 CFR 50.54(q), such as the emergency plan; or a lower tier document, such as the Emergency Plan Implementing Procedures.

Please review the two options provided above, identify which option will be chosen, and provide the detailed EAL information in support of the chosen option. Please identify which option you intend to pursue.

13.03-4

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(4), 10 CFR 50.47(b)(8), Sections IV.B and IV.E of Appendix E to 10 CFR Part 50]

On November 12, 2008, the NRC issued the Advanced Safety Evaluation Report (SER) for the VEGP ESP application to Southern Nuclear Operating Company (SNC), and subsequently made the document publicly available. SER Section 13.3, "Emergency Planning" (ADAMS No. ML083150617), identifies seven VEGP ESP permit conditions (2 through 8, listed below), which address emergency planning in support of the proposed VEGP Units 3 and 4. (The NRC is currently reviewing the VEGP ESP application under docket number 52-011.)

As part of its review of the VEGP ESP application under docket number 52-011, on September 14, 2007, the NRC released a Safety Evaluation Report with Open Items (dated August 30, 2007) (ADAMS No. ML071970283). Section 13.3, "Emergency Planning," of this document identified COL Action Items 13.3-1, 13.3-2 and 13.3-3, which addressed emergency action levels and technical support center (TSC) location. The three COL Action Items were rewritten as seven permit conditions in the Advanced SER.

Please describe the resolution of the VEGP ESP permit conditions, including how each permit condition is met, in relation to the COL application. (For example, permit condition 8 is addressed in (Tier 2*) VEGP DEP 18.8-1, supplemental information VEGP SUP 13.3-3, and VEGP ESP Unit 3 ITAAC 5.1.4; and permit conditions 2 through 7 are addressed in VEGP SUP 13.3-3, and VEGP ESP Units 3 and 4 ITAAC 1.1.2.) Provide any necessary revisions to the COL application to reflect the resolution of all permit conditions.

VEGP ESP Permit Conditions

2. An applicant for a combined license (COL) referencing this early site permit shall revise the EALs for Unit 3 to reflect the final revision of NEI 07-01.
3. An applicant for a combined license (COL) referencing this early site permit shall revise the EALs for Unit 4 to reflect the final revision of NEI 07-01.
4. An applicant for a combined license (COL) referencing this early site permit shall submit a fully developed EAL scheme for Unit 3 that reflects the completed AP1000 design details, subject to allowable ITAAC.
5. An applicant for a combined license (COL) referencing this early site permit shall submit a fully developed EAL scheme for Unit 4 that reflects the completed AP1000 design details, subject to allowable ITAAC.
6. An applicant for a combined license (COL) referencing this early site permit shall complete a fully developed set of EALs for Unit 3, which are based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring, and which have been discussed and agreed on by the applicant or licensee and State and local governmental authorities, and approved by the NRC, and shall include the full set of EALs in the COL application. If the EALs are not fully developed, the COL application shall contain appropriate ITAAC for the fully developed set of EALs for Unit 3.
7. An applicant for a combined license (COL) referencing this early site permit shall complete a fully developed set of EALs for Unit 4, which are based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring, and which have been discussed and agreed on by the applicant or licensee and State and local governmental authorities, and approved by the NRC, and shall include the full set of EALs in the COL application. If the EALs are not fully developed, the COL application shall contain appropriate ITAAC for the fully developed set of EALs for Unit 4.
8. An applicant for a combined license (COL) referencing this early site permit shall resolve the difference between the VEGP Units 3 and 4 common Technical Support Center (TSC), and the TSC location specified in the AP1000 certified design.