

## SummerRAIsPEm Resource

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**From:** Brian Anderson  
**Sent:** Wednesday, March 04, 2009 3:03 PM  
**To:** SummerRAIsPEm Resource  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 036 RELATED TO SRP SECTION 13.3 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION  
**Attachments:** VCS-RAI-LTR-036.doc  
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**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 036 RELATED TO  
SRP SECTION 13.3 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED  
LICENSE APPLICATION

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**Priority:** High

**Return Notification:** No

**Reply Requested:** No

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March 4, 2009

Mr. Alfred M. Paglia  
Manager, Nuclear Licensing  
MC P40  
South Carolina Electric & Gas Company  
PO Box 88  
Jenkinsville, SC 29065

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 036 RELATED TO  
SRP SECTION 13.3 FOR THE VIRGIL C. SUMMER NUCLEAR STATION  
UNITS 2 AND 3 COMBINED LICENSE APPLICATION

Dear Mr. Paglia:

By letter dated March 27, 2008, South Carolina Electric & Gas Company 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 Ravindra Joshi the lead project manager for the Virgil C. Summer Nuclear Station combined license at 301-415-6191.

Sincerely,

**/RA/**

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

Docket Nos. 52-027  
52-028

eRAI Tracking No. 1730

Enclosure:  
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967 or you may contact Ravindra Joshi the lead project manager for the Virgil C. Summer Nuclear Station combined license at 301-415-6191.

Sincerely,

**/RA/**

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

Docket Nos. 52-027  
52-028

eRAI Tracking No. 1730

Enclosure:  
Request for Additional Information

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NAME	KWilliams*	BAnderson*	LGoldin*	RJoshi*
DATE	01/23/09	02/03/09	02/06/09	03/04/09

\*Approval captured electronically in the electronic RAI system.

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**Request for Additional Information**  
**Virgil C. Summer Nuclear Station, Units 2 and 3**  
**South Carolina Electric and Gas Company**  
**Docket No. 52-027 and 52-028**  
**SRP Section: 13.03 - Emergency Planning**  
**Application Section: 13.3-2**

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

13.03-17

**SITE-1:** Assignment of primary responsibilities for emergency response

Basis: 10 CFR 50.47(b)(1); NUREG-0654/FEMA-REP-1 Evaluation Criterion A.1.a, Evaluation Criterion A.1.b, Evaluation Criterion A.1.c, Evaluation Criterion A.3

SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criteria 1 and 18

- A.** Section 1.A, "Concept of Operations," of the VCSNS Emergency Plan provides a list of State, local, Federal and private sector organizations that are intended to be part of the overall response organization for the plume exposure pathway Emergency Planning Zones. Various private agencies have agreed to provide firefighting, medical, resource, and lodging support as needed during an emergency. The specific agencies and the services they have agreed to provide are not identified in the text. The Letters of Agreement are listed in Appendix 2, "Letters of Agreement." Other than the firefighting, it is not clear which organizations are providing services. Please provide additional information regarding the specific roles of private agencies in emergency response and the associated Letters of Agreement.
- B.** A block diagram outlining the interrelationships of participating organizations is provided in Figure A-1, "Agency Response Organization Interrelationships." Section A.1.a.1.b, "U.S. Department of Energy (DOE)," states that if VCSNS or the affected States deem necessary, they should contact the appropriate DOE operations office for radiological equipment and personnel resources. The diagram does not show interaction between DOE and the site or state agencies. Please provide a revision to Figure A-1 that would identify interaction between DOE, the VCSNS site, and other agencies.
- C.** Section A.3, "Agreements in Planning Effort," of the VCSNS emergency Plan states written agreements between VCSNS and other support organizations have been developed. A list of Letters of Agreement is provided in Appendix 2, "Letters of Agreement." The VCSNS Emergency Plan does not include the Letters of Agreement or contract/purchase orders to validate agreements that have been made, but states they are available at the station. Please provide Letters of Agreement or contract/purchase orders in the Emergency Plan to verify that agreements have been made.
- D.** Section A, "Assignment of Responsibility," of the VCSNS Emergency states the site maintains the capability for 24-hour emergency response. However, a 24-hour communication point was not identified for VCSNS in the emergency plan. Please provide the VCSNS 24-hour communication point of contact.

13.03-18

**SITE-2:** Requesting, using and accommodating emergency response support resources

Basis: 10 CFR 50.47(b)(3); 10 CFR 50, Appendix E, IV.A.7; NUREG-0654/FEMA-REP-1; Evaluation Criterion C.1.a and b; Evaluation Criterion C.1.c; Evaluation Criterion C.4

SRP 13.03 ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2

- A.** A discussion of the interactions with federal organizations that will be providing assistance in an emergency and their responsibilities can be found in Section A, "Assignment of Responsibility." Section C.1, "Federal Response Support and Resources" addresses the National Response Plan (NRP), rather than the National Response Framework (NRF) which has now been implemented. Please revise the Emergency Plan to reference the NRF.
- B.** Section C.1.c, "Federal Response Support and Resources," of the VCSNS Emergency Plan states emergency facilities have sufficient equipment and communication capabilities to accommodate federal representatives. However, specific resources are not described. Please provide additional information regarding specific resources made available to federal response teams.
- C.** Section C.4, "Other Assistance," of the VCSNS Emergency Plan states other companies' operating nuclear facilities are available to provide assistance and support through the Institute of Nuclear Power Operations (INPO). The closing sentence to this section states that written agreements are included in Appendix 3 as applicable. Letters of Agreements are listed in Appendix 2, "Letters of Agreement." Please provide a revision to the last sentence of Section C.4 to clarify which Appendix contains Letters of Agreement.

13.03-19

**SITE-3:** Activation and notification processes

Basis: 10 CFR 50.47(b)(5); 10 CFR 50, Appendix E.IV.D.1; NUREG-0654/FEMA-REP-1, Evaluation Criterion E.3, Evaluation Criterion E.4, Evaluation Criterion E.5

SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1, 2 and 6

Section E.6, "Notification of the Public," of the VCSNS Emergency Plan describes the systems used for prompt notification of the general public within the 10-mile plume exposure pathway EPZ. The VCSNS Emergency plan does not discuss any special arrangements for members of the public that do not receive notification. Provide additional information on special arrangements for coverage of the plume exposure pathway EPZ for members of the public that may not receive notification.

13.03-20

**SITE-4:** Communication processes

Basis: 10 CFR 50.47(b)(6); 10 CFR 50, Appendix E.IV.E.9.b; Generic Letter 91-14, "Emergency Communications,"; 10 CFR 50.72(a)(4); NUREG-0654/FEMA-REP-1; Evaluation Criterion F.1.e; Evaluation Criterion F.2.

NUREG-0800 SRP Section 13.03 ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2

- A. Section F.1.a, "Communications/Notifications," of VCSNS Emergency Plan states VCSNS maintains the capability to make initial notifications to the designated offsite agencies on a 24-hour-per-day basis. The offsite notification system, referred to as the Electric Switch System Exchange (ESSX), provides communications to state and county warning points and EOCs from each Control Room, TSC, and the EOF. Backup methods include facsimile, commercial telephone lines, radios, and internet. State and county warning points are continuously staffed. Section F.1.b-d(1) states ESSX is a dedicated communications system that has been installed for the purpose of notifying state and county authorities of declared emergencies at VCSNS. This system links together the VCSNS Control Rooms, EOF, and state and county authorities as appropriate. However, the TSC is not addressed as a link-node in the system. Please clarify the discrepancy regarding communications systems with the TSC.
- B. Appendix 1, "References," of the VCSNS Emergency Plan lists NRC Bulletin 80-15 and NRC Generic Letter 91-14, however Reactor Safety Counterpart Link (RSCL), Protective Measures Counterpart Link (PMCL), Management Counterpart Link (MCL), and Local Area Network (LAN) were not discussed. Please state how VCSNS plans to use the RSCL, the PMCL, the MCL, and the LAN communications paths.
- C. Section F.2, "Medical Communications," of the VCSNS Emergency Plan states commercial telephones are used to communicate with primary and backup medical hospitals and transportation services. Please explain what form of communication will be used to communicate with fixed and mobile medical support facilities if the commercial telephone system is not available.

13.03-21

**SITE-5:** Distribution of public information

Basis: 10 CFR 50.47(b)(7); 10 CFR 50, Appendix E.IV.D.2; NUREG-0654/FEMA-REP-1; Evaluation Criterion G.3a

NUREG-0800, SRP Section 13.03 ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2

Section G.3, "Media Accommodations," of the VCSNS Emergency Plan lists the Emergency Public Information (EPI) Organization and the Joint information Center (JIC) as the two organizations in charge of media and public relations. The SCANA Public Affairs Group is notified when an Unusual Event or higher emergency condition exists and will handle media responsibilities until the JIC is activated. The Emergency Plan does not explain who or what SCANA is. Please explain who or what SCANA is and please identify where SCANA falls within the organizational chart of operations.

13.03-22

**SITE-6:** Emergency facilities and equipment

Basis: 10 CFR 50.47(b)(8); 10 CFR 50, Appendix E.IV.E.1; 10 CFR 50, Appendix E.IV.E.3; Appendix E.IV.E.4; 10 CFR 50.34(f)(2)(iv); 10 CFR 52.79(a)(17), Three Mile Island Requirements; 10 CFR 50, Appendix E.VI Emergency Response Data System; Appendix E.VI. Maintaining Emergency Response



Data System; Appendix E.VI Implementing the Emergency Response Data System Program; NUREG-0654/FEMA-REP-1; Evaluation Criterion H.1; Evaluation Criterion H.2;  
SRP ACCEPTANCE CRITERIA: Requirements A, B and E; Acceptance Criteria 1, 2, 4, 5, 12, 25, 26, 27, 28

- A.** Section H.6.c.2, "Safety Parameter Display System (SPDS)," of the VCSNS Emergency Plan states the site employs an SPDS to display plant parameters used to make a quick assessment of the safety status of the plant, exchange information. The ability of the system to display data trends is not specifically stated. The VCSNS Emergency Plan also does not provide a statement on the reliability of the SPDS design.
1. Please provide additional information regarding the capability of the SPDS system to provide data trends.
  2. Please clarify that the SPDS indicators and circuitry is of reliable design.
- B.** Section K.6.b, "Contamination Control Measures," of the VCSNS Emergency Plan discusses decontamination of personnel will be performed at decontamination areas located onsite. Section 1.2.5, "Annex Building," identifies decontamination facilities in the Annex Building hot shop but it is not clear if this is the facility mentioned in the Emergency Plan. The Emergency Plan also does not provide the location of decontamination facilities onsite. Please clarify the location of decontamination facilities and supplies that will be available for decontamination of personnel.
- C.** Section B.1, "On-shift Emergency Response Organization Assignments," states individuals trained in first aid will be designated as a first aid team for each protected area. Section H.10, "OSC Capabilities," states the Operation Support Centers (OSCs) are stocked with first aid and medical treatment equipment and supplies. The first aid capability at the site is also discussed in detail in Section L.2, "Onsite First Aid Capability." This section states emergency treatment areas, with equipment and supplies are located in each unit and described in each unit annex. Annexes do not include information on emergency treatment areas. Please provide additional information on the location and operation of medical treatment areas located in each unit as stated in Section L.2.
- D.** Section H.1.b, "Technical Support Center [TSC]," states the TSC directly meets most of the requirements of NUREG-0696 and Regulatory Guide 1.206, but the TSC does not lend itself to face-to-face communications with the affected Control Room. The VCSNS Emergency Plan does not state whether the TSC will be constructed in accordance with the Uniform Building Code. NUREG-0696 states the building must be well engineered as defined in the uniform building code.
1. Explain how the requirements in NUREG-0696 will be satisfied.
  2. Since Unit 1 and 2/3 are separated but share a common TSC, is there a plan for a Line of Succession if either Control Room becomes uninhabitable such as in an Hostile Action Based event?
  3. Verify that the TSC and Emergency Operation Facility (EOF) will be constructed in accordance with the Uniform Building Code.
- E.** Section H.2, "Emergency Operations Facility," of the VCSNS Emergency Plan provides information on location and function of the EOF. The plan does not include information on security measures

taken at the EOF. Please provide additional information to explain whether security is available at the EOF to exclude unauthorized personnel and maintain readiness when idle.

- F. Section 4.1.A, "Operations Support Center," of each unit annex, states implementing procedures establish the process for relocating if the OSC becomes uninhabitable. Section H, "Emergency Facilities and Equipment," of the VCSNS Emergency Plan does not address transfer of TSC functions in the event that the TSC becomes uninhabitable. Discuss the relocation of staff and transfer of function for the TSC and OSC in the event that they should become uninhabitable.
- G. Section H.2, "Emergency Operations Facility," states the EOF meets the criteria of NUREG-0696 regarding location, structure, habitability, size, communications, instrumentation, data system equipment, power supplies, technical data, records availability, and management. The EOF is mentioned throughout the plan, but the physical location is never stated. Please provide the location of the EOF and address whether the current/existing EOF facility will remain after Units 2 and 3 are constructed.
- H. In the Technical Specifications Bases and Tier 2, Chapter 1.19, Table 1.9.1, "Regulatory Guide/DCD Section Cross References," of the VC Summer COL application, it references Regulatory Guide 1.97, Revision 3 "Instrumentation for Light-Water Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident." However, in FSAR Table 1.91-201 "Regulatory Guide /FSAR Section Cross References" it references Regulatory Guide 1.97, Revision 4. Clarify the discrepancy in the DCD and FSAR on which Revision of Regulatory Guide 1.97 will be used to for the COL Application.

13.03-23

**SITE-7:** Evacuation provisions and actions

Basis: 10 CFR 50.47(b)(10); NUREG-0654/FEMA-REP-1 Evaluation Criterion J.1, Evaluation Criterion J.2, Evaluation Criterion J.5; Evaluation Criterion J.6; Evaluation Criterion J.7; Evaluation Criterion J.10.a; Evaluation Criterion J.10.b; Evaluation Criterion J.10.a RIS 2003-12, A Clarification of NRC Guidance for Modifying Protective Actions

NUREG-0800 SRP 13.03 ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 1

Section J.2, "Evacuation Locations," of the VCSNS Emergency Plan states personal transportation will be used to evacuate, but personnel without transportation will be identified and will be provided with transportation. Please describe the resources available to transport those without personal vehicles during a site evacuation.

13.03-24

**SITE-8:** Medical services

Basis: 10 CFR 50.47(b)(12); 10 CFR 50, Appendix E.IV.E.5; NUREG-0654/FEMA-REP-1; Evaluation Criterion L.1; Evaluation Criterion L.2

NUREG-0800, SRP 13.03 ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 1

- A. Section L.2, "Onsite First Aid Capability," of the VCSNS Emergency Plan indicates that physicians or nurses are not staffed at VCSNS and medical treatment given to injured persons by the Medical

Emergency Response Team (MERT) is of a "first response" nature. The VCSNS site maintains an agreement with a local physician that serves as the company physician and is available to respond to the site to augment medical treatment. In Appendix 2, "Letters of Agreement," the letter of agreement with a local physician was not listed. Please provide the letter of agreement with physicians available for onsite medical emergencies.

- B.** Section L.3, "Medical Service Facilities," discusses backup response for contamination and exposure injuries from Radiation Emergency Assistance Center/Training Site (REAC/TS) in Oak Ridge Tennessee. However, there is no mention in the plan of a backup hospital or physician that can be used to treat contaminated or exposed persons requiring immediate medical care. Please explain whether there are arrangements for backup medical facilities or physicians that can be used to treat contaminated or exposed persons requiring immediate medical care.
- C.** Section L.2, "Onsite First Aid Capability," also mentions Emergency Treatment Areas and states Emergency Treatment Areas locations are described in the appropriate Unit Annex. However, a description of this was not found. Please provide the location of Emergency Treatment Areas in the Unit Annexes.

13.03-25

**SITE-9:** Drill and exercise evaluation and critiques

Basis: 10 CFR 50.47(b)(14); 10 CFR 50, Appendix E.IV.F.2.f; NUREG-0654/FEMA-REP-1; Evaluation Criterion N.1.b, Evaluation Criterion N.2.a, Evaluation Criterion N.2.b, Evaluation Criterion N.2.d, Evaluation Criterion N.2.e, Evaluation Criterion N.2.e.1, Evaluation Criterion N.2.e.2, NUREG-0800, SRP 13.03 ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2

Section N.2.d, "Radiological Monitoring Drills," of the VCSNS Emergency Plan states that radiological monitoring drills, both on and off-site, are conducted annually. NUREG-0654, Section N.1.d, "Radiological Monitoring Drills," states that where appropriate, local organizations shall participate. However, no information is provided to determine what local organizations become involved in radiological monitoring drills and what their roles will be. Please clarify whether State and local organizations will be participating in annual radiological monitoring drills.

13.03-26

**SITE-10:** Emergency preparedness program maintenance and implementing procedures

Basis: 10 CFR 50.47(b)(16); NUREG-0654/FEMA-REP-1; Evaluation Criterion P.5; Evaluation Criterion P.8; Evaluation Criterion P.9; NUREG-0800 SRP 13.03 ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 1

- A.** Section P.8, "Cross-Reference to Planning Criteria," of the VCSNS Emergency Plan states the format of the Emergency Plan is the same format used in NUREG-0654. The VCSNS Emergency Plan does contain a cross reference for NUREG-0654 in Appendix 6, "NUREG-0654 Cross-Reference Document." However, the appendix is not referenced in Section P.8. Also, the cross

reference in Appendix 6 does not include Appendix E to 10 CFR Part 50 as stated in Section C.I.13.3 of Regulatory Guide 1.206, "Combined License Applications for Nuclear Power Plants."

1. Please provide a Reference to Appendix 6," NUREG-0654 Cross-Reference Document," in Section P.8, "Cross-Reference to Planning Criteria."
2. Please provide a cross reference to Appendix E to 10 CFR Part 50 as stated in Section C.I.13.3 of Regulatory Guide 1.206.

13.03-27

**SITE-11: Plume Exposure EPZ**

Basis: 10 CFR 50.33(g), 10 CFR 52.77 and 10 CFR 50.47(c), and NUREG-0396  
SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 10

Section B, "Background," in the paragraph titled "Emergency Planning Zones," in Part 5, "Emergency Plan," describes plume exposure pathway and ingestion pathway emergency planning zones (EPZs). The plume exposure pathway EPZ consists of an area about 10 miles in radius around the site. Figure 1-3, "10 Mile Emergency Planning Zone," provides an illustration of the plume exposure pathway EPZ.

Please discuss why the plume exposure pathway description does not include references to the area where the principal sources of incident-related radiation exposures are likely to be whole body external gamma radiation exposures and inhalation exposures from the passing radioactive plume as specified on page 9 of NUREG-0396/EPA 520/1-78-016, "Planning Basis for the Development of State and local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Reactors."

**SITE-12 intentionally left blank**

13.03-28

**SITE-13: Evaluation Against the SRP**

Basis: 10 CFR 52.79(a)(41) and 10 CFR 50.34(h)

NUREG-0800 SRP 13.3 ACCEPTANCE CRITERIA: Requirement A; Acceptance Criteria 1 and 11

Table 1.9-202, "Conformance with SRP Acceptance Criteria," in Part 2 of the COL Application states that the Section 13.3, "Emergency Planning," is acceptable from a design certification perspective of the Design Certification Document (DCD). However, the SRP Acceptance Criteria related to Emergency Planning in Section 13.3 of the NUREG-0800, Standard Review Plan (SRP) were not evaluated against the content of Part 5, "Emergency Plan," of the COL Application.

Please provide an evaluation of the VC Summer Emergency Plan against the acceptance criteria in Section 13.3 of the SRP, dated March 2007. Identify all differences between the VC Summer Emergency Plan and SRP Chapter 13.3, "Emergency Planning." Where differences exist, discuss how the proposed alternative provides an acceptable method of complying with applicable regulations, or portions of the regulations.

13.03-29

**SITE-14:** COL Information Items

Basis: 10 CFR 50.47 and Appendix E to 10 CFR Part 50

SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2

A. COL Action Item 13.3-1 in NUREG-1793, "Final Safety Evaluation Report Relating to Certification of the AP1000 Standard Design," states, in part, that the COL applicants that reference the AP1000 certified design will address communication interfaces associated with the TSC.

Please explain why this aspect of the COL Action Item was not captured in STD COL 13.3-1.

B. COL Action Item 13.3.3.3.5-1 in NUREG-1793, "Final Safety Evaluation Report Relating to Certification of the AP1000 Standard Design," states: "Combined license applicants referencing the AP1000 certified design will address activation of the Emergency Operations Facility consistent with current operating practice and NUREG-0654/FEMA-REP-1." Section 13.3, "Emergency Planning," of Part 2 of the FSAR in STD COL 13.3-2 states:

"The emergency plan describes the plans for coping with emergency situations, including communication interfaces and staffing of the emergency operations facility."

Please discuss the relationship between the two Information Items. For example, while COL Action Item 13.3.3.3.5-1 addresses activation of the Emergency Operations Facility, STD COL 13.3-2 addresses staffing and communication interfaces of the Emergency Operations Facility. Please discuss this difference.

13.03-30

**SITE-15:** ITAAC

Regulatory Basis: 10 CFR 52.80(a)

NUREG-0800 SRP ACCEPTANCE CRITERIA: Requirement E; Acceptance Criterion 23

A. Some EP ITAAC will be completed for Unit 2 before those for Unit 3. To allow closure of the common ITAAC for both units when Unit 2 is constructed, please clarify whether the development of separate ITAAC tables for each unit was considered so that the common ITAAC would not need to stay open until Unit 3 is constructed.

B. FSAR Table 3.8-1, "Inspections, Tests, Analyses, and Acceptance Criteria," in Part 10, "Proposed Combined License Conditions (Including ITAAC)," of the FSAR provides three separate acceptance criteria for planning standard 8.0, "Exercises and Drills."

Please address the following questions pertaining to the full-participation exercise, and the applicable guidance provided in Regulatory Guide (RG) 1.206, Appendix B, Table C.II.1-B1, "Emergency Planning – Generic Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)."

- B.1 Table C.II.1-B1 acceptance criterion 14.1.3 addresses offsite exercise objectives associated with the full participation exercise. Please explain why FSAR Table 3.8-1 does not include an acceptance criterion to reflect the offsite exercise objectives associated with the full participation exercise, and how this is consistent with the intent of this generic ITAAC. Please either provide the appropriate acceptance criterion, or explain why it is not required.
- B.2 Table C.II.1-B1 acceptance criterion 14.1.2 includes the bracketed statement that "[t]he COL applicant will identify responsibilities and associated acceptance criteria." Please explain why FSAR Table 3.8-1 (acceptance criteria 8.1.2.) does not identify any responsibilities and associated acceptance criteria, in relation to onsite emergency response personnel successfully performing their assigned responsibilities. Please either provide the appropriate acceptance criterion, or explain why it is not required.
- B.3 Table C.II.1-B1 acceptance criterion 14.1.1 includes the bracketed statement that "[t]he COL applicant will identify exercise objectives and associated acceptance criteria." FSAR Table 3.8-1 (acceptance criterion 8.1.1.) states that exercise objectives, including acceptance criteria were met. However, Table 3.8-1 does not identify (in the acceptance criteria) what the exercise objectives and associated acceptance criteria are (as called for in Table C.II.1-B1). The acceptance criteria must be specific and sufficiently objective, in order to clearly identify what the requirements are, and to provide the ability to determine whether they have been met. As written, the acceptance criterion 8.1.1 does not provide such clear and objective criteria. For the full participation exercise acceptance criteria in Table 3.8-1, please provide specific exercise objectives and associated acceptance criteria, consistent with Table C.II.1-B1. Please either provide the appropriate acceptance criterion, or explain why it is not required.

13.03-31

#### **SITE 16: EAL**

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

#### **EALs are discussed in Section D, "Emergency Classification System," of COL application Part 5, "Emergency Plan.**

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 VC Summer 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 provides 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.

13.03-32

**SITE-17:** Basis: 10 CFR 50.33(g), 10 CFR 52.77

SRP Acceptance Criteria: Requirements A; Acceptance Criterion 10 and 18

The VCSNS Emergency Plan describes coordination with Risk Counties and States of North and South Carolina. Since the Catawba Indian Nation Office of Tribal Government is located in Rock Hill, SC (Within the 50 Mile IPZ) the Tribal Government should be coordinated with as a Sovereign Nation, even if it does not have a direct emergency response roll. Please explain measures or show documentation that the VCSNS Emergency Plan has been coordinated with the Catawba Indian Nation Tribal Government.

**SITE-18: Contamination control and dose limits**

Basis: 10 CFR 50.47(b)(11); Evaluation Criterion K.3.a; Evaluation Criterion K.3.b; Evaluation Criterion K.5.a; Evaluation Criterion K.5.b; Evaluation Criterion K.6.c; Evaluation Criterion K.7

NUREG-0800 SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 1

- A.** Section K.5, "Contamination and Decontamination," of the VCSNS Emergency Plan, states during emergency conditions, normal plant contamination control criteria will be adhered to as much as possible. Action levels are not specified for determining the need for decontamination. Please provide information on action levels used to determine the need for decontamination or a reference to the location of this information if it exists elsewhere.
- B.** Section K.5.b, "Contamination and Decontamination," of the VCSNS Emergency Plan states contaminated personnel will be attended to at decontamination areas located onsite. Decontamination showers and supplies are provided onsite with additional personnel decontamination equipment and capabilities. The equipment available for decontamination is not provided. Please provide additional information regarding equipment available for decontamination of personnel, equipment, supplies, and vehicles.
- C.** The decontamination and/or disposal of contaminated equipment and facilities is discussed in Section K.6, "Contamination Control Measures." This section states that contaminated personnel, equipment, and materials, will be decontaminated in accordance with procedures to "acceptable levels".

  - 1.** Please provide a summary of decontamination procedures or a reference to their location.
  - 2.** Please provide the definition of acceptable levels.
- D.** Section K.6.c, "Contamination Control Measures," of the VCSNS Emergency Plan states restricted areas and contaminated items will be returned to normal use when contamination levels have been returned to acceptable levels. Contamination control criteria for returning areas and items to normal use are contained in the plant procedures. Please provide additional information on the contamination control criteria for returning areas and items to normal use.