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September 28, 2009  
NND-09-0279

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

ATTN: Document Control Desk

Subject: Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3 Combined License Application (COLA) - Docket Numbers 52-027 and 52-028 Response to NRC Request for Additional Information (RAI) Letter No.062

Reference: Letter from Brian C. Anderson (NRC) to Alfred M. Paglia (SCE&G), Request for Additional Information Letter No. 062 Related to SRP Section 13.3 for the Virgil C. Summer Nuclear Station Units 2 and 3 Combined License Application, dated August 27, 2009.

The enclosure to this letter provides the South Carolina Electric & Gas Company (SCE&G) response to the RAI items included in the above referenced letter. The enclosure also identifies any associated changes that will be incorporated in a future revision of the VCSNS Units 2 and 3 COLA.

Should you have any questions, please contact Mr. Al Paglia by telephone at (803) 345-4191, or by email at [apaglia@scana.com](mailto:apaglia@scana.com).

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 28<sup>TH</sup> day of SEPTEMBER, 2009.

Sincerely,

A handwritten signature in black ink that reads "S.A. Byrne". The signature is written in a cursive, flowing style.

Stephen A. Byrne  
Executive Vice President  
Generation and CNO

AMM/SAB/am

Enclosure

DO83  
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**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03-34**

SRP Chapter 13.3, Requirements A and H; Acceptance Criterion 11  
Basis: Appendix 4 to NUREG-0654 Sections II.C, II.E, III.A, IV.B.4, IV.B.5

In response to **RAI 13.03-5(C)** the applicant provided a discussion of the variables for the intersection algorithm in Section 4, Estimation of Highway Capacity, which states that the model was executed iteratively to provide assurance that the allocation of effective green time appropriately represents the operating conditions. The response to **13.03-5(C)**, discusses that this iterative procedure represents a reasonably efficient operation under evacuation conditions. This approach is appropriate, if the traffic control is in place to support a reasonably efficient operation under evacuation conditions. However, in the ETE Section 13, Recommendations states that the traffic management plan “should be” reviewed by state and county emergency planners with local and state police to reconcile resources with current assets. This indicates that the plan is not currently approved.

Discuss whether the traffic management plan has been approved by state and county emergency planners.

Discuss the appropriateness of this modeling approach and whether actual signal cycle timing should be used if the traffic management plan is not implemented.

**VCSNS RESPONSE:**

The ETE report was prepared and then submitted for review to the various agencies; therefore, at the time it was written, the cited recommendation was appropriate. Since then, the applicable state and local governmental authorities have signed certification letters supporting the COLA for VCSNS Units 2 and 3, which includes the ETE in Part 5 and the traffic management plan as documented in ETE Section 9 and Appendix G. SCE&G provided copies of the certification letters to the NRC in letter NND-08-0015, dated June 26, 2008 (Reference ML081900160).

Actual signal cycle timing is inappropriate for use in ETE determination because:

- Signal timing may be classified as “Fixed Time (FT)” and as “Traffic Responsive (TR)”. FT signals do not respond to traffic demand in real time as TR signals do, but generally have several timing plans that can vary with time-of-day (e.g., A.M. peak, midday, P.M. peak, overnight) and day of week (midweek, weekend). TR

signal controllers are even more likely to have multiple timing plans, as described above. In fact, some computer based systems can adjust timing plans as frequently as every 15 minutes. For TR control, the allocation of green time to an approach will likely vary every signal cycle, regardless of the underlying timing plan.

- Given the dynamics of traffic signal timing as described above, plus the fact that timing plans are updated periodically, it is not realistic to use any single timing sequence for an emergency that can occur at any time.
- Measuring timing in the field is therefore a “single point sample” which reflects the timing at that moment and would bear no relation to traffic conditions at a later time under the entirely different circumstances of an emergency evacuation.
- Traffic demand patterns during an evacuation are almost surely to widely differ from the normal traffic patterns on which the existing timing plans are based.
- Driver behavior is expected to differ during an emergency; drivers are not expected to wait patiently at a red signal during an evacuation if there is no conflicting traffic.

**ASSOCIATED VCSNS COLA REVISIONS:**

No COLA changes have been identified as a result of this response.

**ASSOCIATED ATTACHMENTS:**

None

**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03-35**

SRP Chapter 13.3, Requirements A and H; Acceptance Criterion 11  
Basis: Appendix 4 to NUREG-0654 Sections II.C, II.E, III.A, IV.B.4, IV.B.5

In **RAI 13.03-11(B)** the staff asked for clarification of road characteristics. A detailed discussion is provided on the application of field data to the calculation, which states that bridges are treated as Links in the network. The inclusion of the large scale nodal map supports review of the integration of highway characteristics and some bridges are clearly defined as links in the roadway network. However, there is a bridge located between nodes 185 and 186 and there are two bridges between nodes 171 and 172. The discussion in the response to **RAI 13.03-11(B)**, indicates that these bridges should be identified as separate links in the system to account for their unique characteristics.

Discuss if the bridges between nodes 171 and 172 and 185 and 186 should be included as separate links in the nodal system. Revise nodal system map as necessary.

**VCSNS RESPONSE:**

As stated in the response to RAI 13.03-11 (February 2009), “bridges are treated, for ETE purposes, as links in the highway network. Their properties are recorded in Appendix K (with all other links), but are not otherwise delineated”.

Frequently bridges of significant length exhibit characteristics that differ from those of the adjoining roadways. If these differences (e.g. number of lanes, lane width, pavement surface, grade, median treatment, etc) influence free flow speed and/or saturation flow rate, then it is necessary to represent the bridge as a separate link. For these two cited cases, however, there are no material differences between the bridge roadway and the adjoining roadways.

The bridge between node 185 and 186 on Broad River Road has the same characteristics (wide lanes, gentle bends) as the roadway sections it connects and therefore the same capacity and free flow speed apply to the bridge as to the neighboring roadway sections; it is not necessary to represent the bridge as a separate link. The same reasoning applies for the bridge between nodes 171 and 172 on Parr Rd.

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**ASSOCIATED VCSNS COLA REVISIONS:**

No COLA changes have been identified as a result of this response.

**ASSOCIATED ATTACHMENTS:**

None

**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03-36**

SRP Chapter 13.3, Requirements A and H; Acceptance Criterion 11  
Basis: Appendix 4 to NUREG-0654 Sections II.C, II.E, III.A, IV.B.4, IV.B.5

In **RAI 13.03-7(C)** the staff requested that the applicant provide additional information regarding evacuating Monticello Reservoir. In response the applicant states that it is reasonable to expect boaters will be able to return to boat launch sites, trailer their boats, and begin to evacuate the area within the 4 hour mobilization time.

Discuss the capacity of the marinas and boat ramps and assumptions on trip mobilization times assumed for loading of boats considering that ramps may have limited capacity to load more than a few boats at a time.

Discuss whether the trip generation time includes residents returning home to drop off the boat, pack, and evacuate.

**VCSNS RESPONSE:**

There are no marinas in the area – just 5 boat ramps serving Monticello and Parr Reservoirs:

<b>Ramp Description</b>	<b>Est. No. of Launch Sites*</b>	<b>Est. No. of Filled Parking Spaces</b>
Lake Monticello East	2	20
Cannon's Creek	2	10
Heller's Creek	3	6
Lake Monticello West	3	39
Subimpoundment	1	10
	<b>TOTAL</b>	<b>85</b>

\*The number of boats that can be launched and be taken out of the water concurrently.

On page 3-8 of the ETE Report an estimate of "120 people boating" is presented. This estimate is consistent with parking spaces at the boat ramps. Assuming an average of 12 minutes to load a boat onto a trailer, then a worse case scenario would require 13 "waves" of boaters loading their trailers at their respective ramps (i.e. 39/3 at Lake Monticello West ramp). Assuming 15 minutes elapse before the first wave returns to the ramp yields a maximum time to recover all boats of 171 minutes (15 + 13 x 12). A

review of Distribution A (Leaving Work) and C (Residents with Commuters) in Table 5-1 reveals that 100% of transients leave within 150 minutes and 100% of residents with commuters leave within 240 minutes. These distributions are comparable to the worst case condition at Lake Monticello West boat ramp as discussed above. Given the small number of boater vehicles (~85 or about 1% of the total number of evacuating vehicles) and their comparable trip generation times, the current ETE properly accounts for boating people.

**ASSOCIATED VCSNS COLA REVISIONS:**

No COLA changes have been identified as a result of this response.

**ASSOCIATED ATTACHMENTS:**

None

**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03-37**

SRP Chapter 13.3, Requirements A and H; Acceptance Criterion 11  
Basis: Appendix 4 to NUREG-0654 Sections II.C, II.E, III.A, IV.B.4, IV.B.5

In **RAI 13.03-13(D)** the staff requested that the applicant explain the values used in the shadow population and discuss the timing of traffic loading onto the network for the shadow population identified in Table 6-4. In response the applicant provided a detailed discussion of the development and calculation of shadow population vehicles. However, the applicant did not provide a discussion regarding the timing of the traffic loading onto the evacuation network.

Discuss the timing of the traffic loading onto the evacuation network.

**VCSNS RESPONSE:**

The shadow region vehicles shown in VCSNS Evacuation Time Estimate (ETE) Table 6-4 are loaded on the link-node analysis network (Figure 1-2) using the same trip generation times as EPZ residents with Commuters – Distribution C in VCSNS ETE Table 5-1.

**ASSOCIATED VCSNS COLA REVISIONS:**

The following change will be made to the VCSNS ETE (Part 5) in a future revision of the COLA:

Add the following footnote to ETE Table 5-1, column labeled “Residents With Commuters (Distribution C)” (See page 5-13):

(a) Distribution C also applies to vehicles evacuating from the Shadow Region.

**ASSOCIATED ATTACHMENTS:**

None

**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03-38**

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

**Technical Information in the Plan:** Appendix 1, "References," of the VCSNS Units 2 and 3 Emergency Plan lists NRC Bulletin 80-15 and NRC Generic Letter 91-14 regarding Emergency Communications, however Reactor Safety Counterpart Link (RSCL), Protective measures Counterpart Link (PMCL), Management Counterpart Link (MCL), and Local Area Network (LAN) were not discussed. In **RAI 13.3-20(B)** staff requested additional information on how VCSNS addressed RSCL, PMCL, MCL, and LAN communications paths. In a response letter dated May 8, 2009, the applicant stated that these communication lines are reserved for use by the NRC Site Response Team and VCSNS does not include utilization of these communication links in the Emergency Plan. Testing of these communication lines on a routine basis will be included in accordance with administrative procedures to be developed. As reflected in Generic Letter 91-14, the NRC considers these communications to be essential. A statement with regard to their use should be included in the VCSNS Emergency Plan.

Provide a statement in the VCSNS Emergency Plan regarding the use of the RSCL, PMCL, MCL, and LAN communications or provide a justification of why the statement is not needed.

**VCSNS RESPONSE:**

SCE&G will add a statement to the VCSNS Emergency Plan to address the usage of these communication lines as shown below. While SCE&G does not plan to utilize these lines as a normal means of communication, the use of these communication tools by the NRC is being acknowledged within the Emergency Plan.

**ASSOCIATED VCSNS COLA REVISIONS:**

The following change will be made to the VCSNS Emergency Plan (Part 5) in a future revision of the COLA:

Revise the VCSNS Emergency Plan, page C-1 Section C.1.d, to add the following statement:

Communication pathways provided in each of these facilities include access to dedicated landline telephones, wireless telephones and FTS telephones as provided by the NRC and include the Reactor Safety Counterpart Link (RSCL), Management Counterpart Link (MCL), the Protective Measures Counterpart Link (PMCL), and the Local Area Network (LAN). These FTS lines are in place in the appropriate VCSNS emergency response facilities and are for use by the NRC Response Team upon their arrival. The VCSNS ERO does not normally utilize these communication links.

**ASSOCIATED ATTACHMENTS:**

None

**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03-39**

**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

**Technical Information in the Emergency Plan:** Section K.5.b, “Contamination Control Measures,” of the VCSNS Emergency Plan states decontamination of personnel will be performed at decontamination areas located onsite. Temporary decontamination areas can also be set up inside at various locations. Showers and supplies to be used are provided onsite. Section H.12, Emergency Equipment and Supplies,” provides a general list of supplies kept in each facility. The emergency plan does not provide the location of decontamination facilities onsite or provide a list of supplies that are available for decontamination of personnel. DCD 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. In **RAI 13.3-22(B)** the staff requested additional information on the location of decontamination facilities and supplies that will be available for decontamination of personnel. In a response letter dated May 8, 2009, the applicant stated that decontamination facilities and their location will be described in the Emergency Plan Implementing Procedures to be submitted within the required timeframe as required by the EP ITAAC. The procedures will also address decontamination materials.

In response to **RAI 13.3-22(B)** the applicant stated that information related to decontamination facility locations and supplies will be provided in Implementing Procedures.

Since 10 CFR 50, Appendix E.IV.E.3 requires that decontamination facilities at the site and the supplies for decontaminating onsite individuals be described, revise the VCSNS Emergency Plan to address the location(s) of onsite decontamination facilities and describe the decontamination supplies associated with these facilities.

**VCSNS RESPONSE:**

The onsite decontamination locations are discussed in the AP1000 DCD and will be added to the Emergency Plan Section K.5.b. In addition, the following list of basic decontamination supplies will be added to the Emergency Plan: soaps, shampoo, mild detergent, 3% Hydrogen Peroxide solution, plastic bags, plastic suits, cotton swabs, oral hygiene products, and saline solution.

**ASSOCIATED VCSNS COLA REVISIONS:**

The following changes to the Emergency Plan will be incorporated in a future revision of the VCSNS Units 2 and 3 COLA:

Revise Section K, paragraph b, page K-3 as follows:

Contamination Control Means: Personnel found to be contaminated will normally be attended to at decontamination areas located onsite. Temporary decontamination areas can also be set up inside at various locations. Decontamination showers and supplies are provided onsite in the Health Physics area located in the Annex Building of the AP1000 units along with additional personnel decontamination equipment and capabilities. Basic decontamination supplies such as soaps, shampoo, mild detergent, 3% Hydrogen Peroxide solution, plastic bags, plastic suits, cotton swabs, oral hygiene products, and saline solution will be available in the Health Physics area. Shower and sink drains in the controlled area are routed to the miscellaneous waste processing system where the liquid is processed and monitored prior to discharge. Potentially contaminated emergency vehicles will be surveyed before they are allowed to leave the plant or offsite assembly area. If the survey area is not suitable for monitoring and decontamination due to radiological or other concerns, vehicles will be surveyed at an alternate location.

**ASSOCIATED ATTACHMENTS:**

None

**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03- 40**

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

**Technical Information in the Emergency Plan: [L.1.]** Section L.1, “Offsite Hospital and Medical Services,” of VCSNS Emergency Plan states that there are arrangements by letter of agreement with Palmetto Richland Hospital for receiving and treating contaminated or exposed persons requiring immediate medical care. Palmetto Richland Hospital is identified in the list of letters of agreement in Appendix 2 “Letters of Agreement,”. Section L.3, “Medical Service Facilities,” discusses backup response for contamination and exposure injuries from the Radiation Emergency Assistance Center/Training Site (REAC/TS) in Oak Ridge Tennessee. In **RAI 13.03-24(B)** staff requested information to explain if there are arrangements for backup hospital or physician that can be used for treating contaminated or exposed persons requiring immediate medical care. In a response letter dated May 8, 2009, the applicant stated that the back-up medical facility for contamination and exposure injuries is the REAC/TS. Personnel requiring treatment beyond that provided by the primary facility will be transported to REAC/TS with transportation provided by the county, State, or Federal Agencies.

In response to **RAI 13.03-24(B)** the applicant stated that REAC/TS is the backup medical facility for treatment of contaminated injured individuals from the VCSNS site. The South Carolina State Plan specific to the VCSNS site identifies Newberry County Memorial Hospital as the backup facility for treatment of contaminated injured individuals.

Clarify in the VCSNS Emergency Plan which facility will act as a backup for the treatment of contaminated injured individuals.

**VCSNS RESPONSE:**

The South Carolina Emergency Plan states that Newberry Memorial Hospital is the back-up for radiological-medical emergencies. This is an agreement between the hospital and the State to support radiological-medical emergencies and is not intended as an agreement between the hospital and VCSNS. The VCSNS Emergency Plan instead identifies REAC/TS in Oak Ridge, Tennessee as the back-up to Palmetto

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Richland Hospital for VCSNS. This is the appropriate reference for the backup treatment of contaminated injured individuals in the VCSNS Emergency Plan.

**ASSOCIATED VCSNS COLA REVISIONS:**

No COLA changes have been identified as a result of this response.

**ASSOCIATED ATTACHMENTS:**

None

**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03- 41**

[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.

In **RAI 13.03-31** the applicant was requested to choose either Option 1 to provide an entire EAL scheme or Option 2 which would require a commitment to either EAL scheme NEI 07-01, Rev 0 or NEI 99-01 Rev 5, and address the 4 critical elements, and submit a revised Section D. In the May 8, 2009 response, the applicant chose Option 2. However the response did not adequately address Critical Elements #2, #3, and #4:

A) The references need be to a specific document such as "NEI-07-01, Revision 0." Statements "the most current NRC endorsed version available" are not acceptable.

B) Where an existing proposed EAL scheme is addressed that will be removed in a subsequent Emergency Plan revision the words such as "reserved" or "to be determined" needs to be replaced with either "not used" or "Intentionally left blank."

C) The proposed license condition also should reference the specific NEI document and not "the most current NRC endorsed version available."

Address corrections to Critical Elements #2, #3, and #4.

Confirm that the final EAL scheme has been reviewed and agreed upon by State and local Emergency Management officials.

**VCSNS RESPONSE:**

- A. Subsequent to the SCE&G May 8, 2009 response, the NRC provided a letter to the Nuclear Energy Institute (NEI) dated August 12, 2009 (ML092190035) endorsing NEI 07-01. Within this letter the NRC indicated that applicants could reference the version of NEI 07-01 submitted to the NRC in July 2009 (ML 092030210). This version, NEI 07-01, Rev. 0, dated July 2009, contains the EAL scheme SCE&G will utilize to develop the EALs for VCSNS Units 2 and 3.
- B. VCSNS Emergency Plan Annexes 2 and 3 will be revised to list the page being held for the future incorporation of the EALs as "Intentionally left blank", as requested.

C. Please see response to Item A. above.

**ASSOCIATED VCSNS COLA REVISIONS:**

The following changes to the VCSNS Emergency Plan (Part 5) will be incorporated in a future revision of the VCSNS Units 2 and 3 COLA:

1. Annex 2, page 2-9 will be revised as shown:  
~~Unit 2 EALs to be developed in accordance with NEI 07-01, Methodology for Development of Emergency Action Levels Advanced Passive Light Water Reactors.~~ Intentionally left blank
2. Annex 3, page 3-9 will be revised as shown:  
~~Unit 3 EALs to be developed in accordance with NEI 07-01, Methodology for Development of Emergency Action Levels Advanced Passive Light Water Reactors.~~ Intentionally left blank

The following changes to Proposed License Conditions and ITAAC (Part 10) will be incorporated in a future revision of the VCSNS Units 2 and 3 COLA:

COLA Part 10, Proposed License Conditions and ITAAC will be revised to modify the following License Condition:

The licensee shall submit a fully developed set of plant-specific Emergency Action Levels (EALs) for VCSNS Units 2 and 3 in accordance with NEI 07-01 Revision 0, ~~or the most current NRC endorsed version available at the time of EAL submittal.~~  
These fully developed EALs shall be submitted to the NRC for confirmation at least 180 days prior to initial fuel load. The submitted EALs will be written with no deviations.

**ASSOCIATED ATTACHMENTS:**

None

**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03-42**

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

The applicant's response to **RAI 13.03-29(B)** refers to Section H.2, "Activation and Staffing of Emergency Response Facilities," of the VCSNS Emergency Plan which states that the emergency response facilities (ERFs) are staffed and activated in accordance with emergency plan implementing procedures (EPIPs).

Provide additional information in the VCSNS Emergency Plan on the timeliness of staffing the ERF and details defining when the ERF is activated and when it is fully operational.

**VCSNS RESPONSE:**

The VCSNS Emergency Plan Revision 1 Section H.5 provides the following description for the activation of Emergency Response Facilities:

**Activation**

NOTE: NUREG-0654 Criterion II.B.5 states that the "licensee must be able to augment onshift capabilities within a short period after declaration of an emergency." It further defines that short period as 30 and 60 minutes. VCSNS will use unaffected unit on-shift personnel to augment the affected unit on-shift personnel upon declaration of an Alert or higher classification. This staffing augmentation will fulfill the NUREG-0654 Criterion II.B.5 for 30- minute responders and provides additional support to the Onshift ERO to permit a 75 minute response for on-call ERO personnel. The time frames for rapid augmentation of a nuclear power plant staff in the event of an emergency are not rigid inviolate requirements but rather goals. It is VCSNS's intent to expend its best efforts to meet the augmentation criteria goals regarding staffing Emergency Response Facilities with sufficiently skilled individuals capable of handling an emergency. Both the NRC and VCSNS realize that due to diversity of normal residential patterns for the stations' staff, possible adverse weather conditions and road congestion, these time frames might be exceeded.

VCSNS has put into place plans and procedures to ensure timely activation of its ERFs. The Shift Supervisor (as IED) will initiate a call-out in accordance with the emergency planning procedures. The ERO augmentation process identifies individuals who are capable of fulfilling the specific response functions that are listed in VCSNS Emergency Plan Table B-1b. This table was developed based on the functions listed in NUREG-0654, Table B-1.

Although the response time will vary due to factors such as weather and traffic conditions, a goal of 75 minutes for minimum staffing, following the notification of an Alert or higher emergency classification, has been established for the ERO personnel responding to the station emergency facilities and the EOF. Additionally, plans have been developed to ensure timely functional activation and staffing of the JIC when the classification of Alert is declared. It is the goal of the organization to be capable of activating the applicable ERF within 15 minutes of achieving minimum staffing. The facility can be declared activated when the following conditions are met:

- a. Minimum staffing has been achieved.
- b. Personnel have been briefed on the situation.
- c. The facility is functionally capable of performing the appropriate activity.

Although the minimum staffing criteria applies to the JIC, the 75-minute response time and 15-minute activation times are not applicable. Public Information personnel must first coordinate the decision to activate the JIC with the appropriate offsite authorities responding to the facility.

The senior manager in charge may elect to activate their facility without meeting minimum staffing if it has been determined that sufficient personnel are available to fully respond to the specific event (this would not constitute a successful minimum staff response).

**ASSOCIATED VCSNS COLA REVISIONS:**

No COLA changes have been identified as a result of this response.

**ASSOCIATED ATTACHMENTS:**

None

**NRC RAI Letter No. 062 Dated August 27, 2009**

**SRP Section: 13.3 – Emergency Planning**

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

**NRC RAI Number: 13.03-43**

Basis: 10 CFR 52.80(a)  
NUREG-0800 SRP Acceptance Criteria: Requirement E; Acceptance Criterion 23

RAI 13.03-30(B)(1) Table C.II.1-B1 (generic ITAAC) acceptance criterion 14.1.3 addresses offsite exercise objectives associated with the full participation exercise. Explain why Table 3.8-1, (EP-ITAAC) 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. The applicant was asked to either provide the appropriate acceptance criterion, or explain why it is not required. In a letter dated May 8, 2009, the applicant responded that the offsite exercise objectives and their “extent of play” can not be determined this far in advance of the exercise.

Provide the exercise objectives for the offsite full participation exercise for Unit 2 and 3 prior to each Unit exercise.

**VCSNS RESPONSE:**

SCE&G will be interfacing with the off-site participating agencies to develop the appropriate exercise objectives and extent of play for each of the VCSNS Units 2 and 3 exercises. These objectives will be finalized based on communications with the supporting organizations during the development and approval of the full participation exercise.

**ASSOCIATED VCSNS COLA REVISIONS:**

No COLA changes have been identified as a result of this response.

**ASSOCIATED ATTACHMENTS:**

None