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Vice President
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March 26, 2014
NND-14-0161
10 CFR 50.90

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

Virgil C. Summer Nuclear Station (VCSNS) Units 2 & 3
Combined License Nos. NPF-93 and NPF-94
Docket Nos. 52-027 and 52-028

Subject: LAR 13-26S1, Supplement 1, VCSNS Response to eRAI 7434
Regarding License Amendment Request 13-26: Emergency Plan
Revision to Comply with Emergency Preparedness Final Rule

Reference: 1. LAR 13-26: VCSNS Units 2&3 Emergency Plan Revision to Comply
with Emergency Preparedness Final Rule, Dated December 17, 2013
(Accession Number ML13360A167).

2. Request for Additional Information: Request for License Amendment
(LAR 13-26) for the Virgil C. Summer Nuclear Station Units 2&3:
Emergency Plan Revision to Comply with Emergency Preparedness Final
Rule, Dated March 4, 2014 (Accession Number ML14063A682)

On December 17, 2013, in accordance with the provisions of 10 CFR 50.90, SCE&G requested an amendment to Combined Operating License (COL) numbers NPF-93 and NPF-94 for VCSNS Units 2 and 3, respectively, which is identified as Reference 1.

On March 4, 2014, The Nuclear Regulatory Commission (NRC) staff issued a Request for Additional Information to SCE&G, referred to as eRAI 7434 (Reference 2), regarding Reference 1.

The SCE&G response to the NRC staff question in Reference 2 is included in Enclosure 5 of this letter. This response involved revision to several mark-ups previously provided to the NRC by the Licensee within Enclosure 2 of Reference 1. Enclosure 6 of this letter replaces Enclosure 2 of Reference 1 in its entirety to modify Reference 1 and align it with the SCE&G answer to NRC staff eRAI 7434.

The information provided in Enclosures 5 and 6 does not change the scope of Reference 1, nor does the information affect its Technical Evaluation or the conclusions of the Significant Hazards Consideration determination. As a result, a revised Significant Hazards Consideration determination is not required.

The information provided in Enclosures 5 and 6 does not alter the initial review and approval date requested by the Licensee in Reference 1.

In accordance with 10 CFR 50.91, SCE&G is notifying the State of South Carolina of this LAR supplement by transmitting a copy of this letter and its enclosures to the designated State Official.

This letter contains no regulatory commitments.

Should you have any questions, please contact Alfred M. Paglia by telephone at (803) 941-9876, or by email at apaglia@scana.com.

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

Executed on this 26th day of March, 2014.

Sincerely,



Ronald A. Jones
Vice President
New Nuclear Operations

DK/RAJ/dk

Enclosure 5: Virgil C. Summer Nuclear Station Units 2 & 3 Response to NRC Request for Additional Information Letter Dated March 4, 2014 Related to License Amendment Request LAR 13-26.

Enclosure 6: Virgil C. Summer Nuclear Station Units 2 & 3 Revised Proposed Changes to Licensing Basis Documents (LAR 13-26)

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South Carolina Electric & Gas Company

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Enclosure 5

(Note that Enclosures 1, 2, 3 and 4 were included with LAR 13-26)

Virgil C. Summer Nuclear Station Units 2&3

Response to NRC Request for Additional Information

Letter (eRAI 7434) dated March 4, 2014 Related to

License Amendment Request LAR 13-26

NRC Question:

In Revision 4 of the VCSNS Nuclear Operations Radiation Emergency Plan, Sections II.N.1.a and II.N.2.g describe a six-year exercise cycle. In the proposed revision, the “six-year” quantifier was deleted so that the exercise cycle duration is undefined. Provide a defined exercise cycle, consistent with Section IV.F.2.j of Appendix E to 10 CFR Part 50, or explain why this is not required.

SCE&G Response:

In the Final Rule for Emergency Planning and Preparedness published on November 23, 2011, the NRC redefined the exercise cycle from a six year period to an eight year period. SCE&G captured this change to an eight year exercise cycle in emergency plan implementing procedure EPP-105 “Conduct of Drills and Exercises” but did not define it in the Emergency Plan License Amendment Request, Reference 1.

SCE&G has revised Enclosure 2 of Reference 1 by adding text in the appropriate locations that identifies the exercise cycle as eight years. The Emergency Plan mark-ups initially provided in Enclosure 2 of Reference 1 are replaced in their entirety by the revised mark-ups provided in Enclosure 6 of this letter.

Revisions to the mark-ups, which identified the exercise cycle as an eight year period, impacted the following sections of the Emergency Plan: sections II.N.1, II.N.1.a and II.N.2.g.

South Carolina Electric & Gas Company

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Enclosure 6

Virgil C. Summer Nuclear Station Units 2&3

Revised Proposed Changes to

Licensing Basis Documents

(LAR 13-26)

Mark-up of Section H.2 of the VCSNS Units 2&3 Emergency Plan:

Figure B-1b illustrates the staffing and organization for the OSC

Each OSC is equipped with communication links to the Control Rooms and the TSC (see Section F). A limited inventory of supplies will be kept in the OSCs or accessible to the OSCs. This inventory will include respirators, protective clothing, flashlights, and portable survey instruments.

Refer to the Unit Annexes for additional information regarding the OSCs.

A Back-up OSC is included in the configuration and sizing of the Technical Support Center and a Remote OSC is included in the Joint Information Center Building, which also houses the EOF. The Back-up OSC includes a designated command area, work areas for OSC groups, and staging areas (break room/kitchen) for OSC Damage Control personnel.

The Remote OSC is designed to allow evaluators and decision makers access to plant data and network computer systems to support event evaluations and development of mitigation strategies and mission while planning for return to the site. The facility also has access to communications systems, such as telephone (land based and satellite) systems and radio systems with direct links to the onsite personnel. Using these systems, communications may be established with the Units' Control Rooms, the EOF, and TSC. The building provides work space for staging damage control teams and has access to plant drawings, system information, and plant procedures. A limited number of hard copies of procedures are provided for reference or as back-up to network systems.

2. Emergency Operations Facility

The EOF is the location where the ECO will direct a staff in evaluating and coordinating the overall company activities involved with an emergency. Activation of the EOF is mandatory upon declaration of an Alert or higher classification. The EOF is located in Richland County near the intersection of Bickley Road and SC Hwy 176 and is outside the 10 Mile Emergency Planning Zone and greater than 10 miles and less than 25 miles from the Technical Support Center (TSC). The EOF provides for:

- Management of overall emergency response
- Performance of the non-delegable emergency notification and PAR development and notification functions when in command and control
- Notification of appropriate corporate and station management
- Coordination of offsite radiological and environmental assessments
- Determination of recommended public protective actions
- Management of recovery operations from an Alert or higher classification
- Coordination of emergency response activities with federal, state, and county agencies

The EOF was designed with the following considerations:

- The EOF is provided with access limiting devices when not in use and assigned security personnel during activation to ensure that only authorized personnel are permitted to enter the facility.

Mark-up of Section N.1 of the VCSNS Units 2&3 Emergency Plan:

Section N: Drill and Exercise Program

This section describes the Drill and Exercise Program that VCSNS has implemented to:

- Verify the adequacy of the Emergency Preparedness Program
- Develop, maintain, and evaluate the capabilities of the ERO to respond to emergency conditions and safeguard the health and safety of station personnel and the general public
- Identify deficiencies in the Emergency Plan and its associated procedures, or in the training of response personnel, and ensure that they are promptly corrected
- Identify deficiencies in the relationship between the Emergency Plan and the VCSNS Security Plan and ensure that they are promptly corrected.
- Ensure the continued adequacy of emergency facilities, supplies, and equipment, including communications networks

1. Exercises

Exercises provide an opportunity to evaluate the ability of participating organizations to implement a coordinated response to postulated emergency conditions. Provisions will be made for qualified personnel from VCSNS, other commercial nuclear facilities, or federal, state, or local governments to observe and critique each exercise as appropriate. Exercises are conducted to ensure that all major elements of the emergency plan and preparedness program are demonstrated at least once in each eight year exercise cycle. Each scenario variation shall be demonstrated at least once during the eight year cycle and shall include, but not limited to, the following:

- An off-hours exercise between 6:00 p.m. and 4:00 a.m. Weekends and holidays are also considered off-hour periods
- Hostile action directed at the plant site involving the integration of offsite resources with onsite response; VCS participates on a rotating basis with other fixed nuclear facilities in the state of South Carolina
- An initial classification of, or rapid escalation to, Site Area Emergency or General Emergency
- No radiological release or an unplanned minimal radiological release that requires the site to declare a Site Area Emergency, but does not require declaration of General Emergency

An ingestion pathway exercise; VCSNS participates on a rotating basis with the other fixed nuclear facilities in the state of South Carolina. The station shall conduct at least one off-hours exercise between 6:00 p.m. and 4:00 a.m. every cycle (6 years). Weekends and holidays are also considered off-hour periods. Ingestion Pathway Exercises are conducted on a six-year cycle. VCSNS participates on a rotating basis with the other fixed nuclear facilities in the State of South Carolina.

Mark-up of Section N.1.a of the VCSNS Units 2&3 Emergency Plan:

a. Biennial Exercises

Federally prescribed exercises are conducted at the station in order to test the adequacy of timing and content of implementing procedures and methods; to test emergency equipment and communication networks; and to ensure that emergency personnel are familiar with their duties. Exercises involving offsite agency participation, required under Sections F.2.b., F.2.c., & F.2.d. to 10 CFR 50 Appendix E, are conducted at the station based on FEMA guidance and the respective state and county emergency response plans.

Full participation exercises will include appropriate offsite local and state authorities and VCSNS personnel physically and actively taking part in testing the integrated capability to adequately assess and respond to a declared emergency at the station. Additionally, full participation exercises will include testing the major observable portions of the onsite and offsite emergency plans and mobilization of state, local, and VCSNS personnel and other resources in sufficient numbers to verify the capability to respond to the accident scenario. Some of the offsite response actions may be provided for evaluation in an out-of-sequence manner. These exercises are to be scheduled in an attempt to provide or simulate various weather conditions.

Ingestion pathway exercises are conducted ~~on a six-year~~ within each eight year exercise cycle. VCSNS participates on a rotating basis with the other fixed nuclear facilities in the state of South Carolina. These exercises are usually conducted in conjunction with a full participation exercise as the state chooses.

Where full participation by offsite agencies occurs, the sequence of events simulates an emergency that may result in the release of radioactivity to the offsite environs or the threat of such a release, sufficient in magnitude to warrant a response by offsite authorities. The sequence of events will be submitted to the NRC and FEMA in a timely fashion to ensure that the scenario is judged to provide adequate opportunity for demonstration of the agreed upon objectives and extent of play.

In the event of an inadequate demonstration of the offsite response, VCSNS will participate and support the conduct of activities that are designed to address the deficient or weak demonstrations.

b. Off-Year Exercises

An Off-Year Exercise is conducted at the station during the calendar year when an NRC Evaluated Exercise is not scheduled. An Off-Year Exercise shall involve the station and its facilities in order to demonstrate at least the functions of management and coordination of emergency response, accident assessment, protective action decision-making, or plant system repair and corrective actions. Off-Year Exercises involve no or limited participation by offsite agencies, although a routine offer is made to determine the extent of participation by the offsite authorities. Emphasis is placed on development and conduct of an exercise that is more mechanically and operationally realistic. Players may be able, by implementing appropriate procedures and corrective actions, to determine the outcome of the scenario to a greater extent than when core damage and the release of radioactivity that are prerequisites for demonstration of all objectives which may include security response activities.

Mark-up of Section N.2.g of the VCSNS Units 2&3 Emergency Plan:

- f. Health Physics Drills: Health Physics drills involving a response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements within the plant are conducted semiannually in each Protected Area.
- g. Augmentation Drills: Augmentation drills serve to demonstrate the capability of the process to augment the on-shift staff with a TSC, OSCs, EOF, and JIC after declaration of an emergency. These drills are conducted using the following methods:
 - Semiannually, an unannounced off-hours ERO augmentation drill where no actual travel is required
 - At least once per eight year exercise cycle (~~every 6 years~~), an off-hours unannounced activation of the ERO Notification System with actual response to the emergency facilities is conducted to support the response of the ERO
- h. Accountability Drills: Accountability drills are conducted annually for each Protected Area. The drill includes ascertaining the names of all missing individuals within that protected area and accounting for all individuals within the Protected Area continuously throughout the event.

3. Conduct of Drills and Exercises

Advance knowledge of the scenario will be kept to a minimum to allow "free-play" decision making and to ensure realistic participation by those involved. Before the drill or exercise, a package will be distributed to the Controllers and Evaluators that will include the scenario, a list of performance objectives, and a description of the expected responses.

Drills will be provided to ensure that each member of the ERO will have an opportunity to participate in a drill in their assigned facility at least once in a two-year period. Drills will be rotated among the Units and their specific ERFs to provide the needed opportunities for the members of the ERO.

For each emergency preparedness exercise or drill conducted, a scenario package is developed that includes at least the following:

- a. The basic objective(s) of the drill or exercise and the appropriate evaluation criteria
- b. The date(s), time period, place(s), and participating organizations
- c. The simulated events
- d. A list of anticipated Drill/Exercise Performance (DEP) opportunities including classification, notifications and PARs
- e. A time schedule of real and simulated initiating events
- f. A narrative summary describing the conduct of the scenario to include such things as simulated casualties, offsite fire department assistance, rescue of personnel, use of protective clothing, deployment of radiological monitoring teams, and public information activities
- g. A list of qualified participants

Mark-up of Appendix 5 of the VCSNS Units 2&3 Emergency Plan:

Appendix 5 - Evacuation Time Estimate Study

The Evacuation Time Estimate Study was prepared by KLD Associates, Inc. This controlled document, in its entirety, is filed under separate cover and has been distributed to designated locations. The ETE is to be conducted within 365 days of the availability of the decennial census data from the U.S. Census Bureau.

In accordance with 10 CFR 50 Appendix E, Section IV.5-7, the EPZ permanent resident population must be estimated annually between the decennial censuses. This document is to be a controlled document under separate cover and distributed to designated locations.