



April R. Rice
Manager, Nuclear Licensing
New Nuclear Deployment

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NND-15-0205

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

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

Subject: VCSNS Units 2 & 3 Response to Request for Additional Information
Letter No. 3 (eRAIs 7463 and 7469) Regarding Mitigation Strategies
for Beyond Design Basis External Events Pertaining to License
Condition 2.D(13) of Combined Operating License (COL) Numbers
NPF-93 and NPF-94

- References:
1. Virgil C. Summer Nuclear Station Units 2 & 3 Overall Integrated Plan with Regard to Mitigation Strategies for Beyond Design Basis External Events pursuant to License Condition 2.D(13) "Mitigation Strategies for Beyond Design Basis External Events" of Combined License (COL) Numbers NPF-93 and NPF-94 Dated August 21, 2013 (Accession Number ML13234A519)
 2. Request for Additional Information Letter No. 03 Related to Fukushima Near-Term Task Force Recommendation 4.2, "Mitigation Strategies for Beyond Design-Basis External Events" for the Vogtle Electric Generating Plant Units 3 and 4 Combined Licenses Dated August 13, 2014 (Accession Number ML14225A321)
 3. Vogtle Electric Generating Plant Units 3 and 4 Overall Integrated Plan in Response to March 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (EA-12-049), dated August 22, 2013 (Accession Number ML13235A228).

On March 30, 2012, The Nuclear Regulatory Commission (NRC) issued to South Carolina Electric & Gas Company (SCE&G) Combined Operating License numbers NPF-93 and NPF-94 for Virgil C. Summer Nuclear Station, Units 2 & 3, respectively. These COLs include license condition 2.D(13), which requires SCE&G to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event.

On August 21, 2013, pursuant to license condition 2.D(13)(f)3, VCSNS Units 2&3 submitted the Overall Integrated Plan (OIP), Reference 1, to the NRC under correspondence letter number NND-13-0447.

On August 13, 2014 The NRC issued a Request for Additional Information (RAI) letter, Reference 2, to Southern Nuclear Operating Company regarding the Vogtle Electric Generating Plant Units 3 and 4 Overall Integrated Plan, Reference 3.

Since Reference 2 is based upon the proprietary Westinghouse report APP-GW-GLR-170 Revision 0, a document submitted by both SCE&G, in Reference 1, and Southern Nuclear Operating Company (SNC), in Reference 3, SCE&G elects to respond to Reference 2 with the answers provided in Enclosure 1 of this letter.

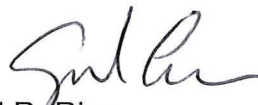
Should you have any questions about this letter, please contact Justin Bouknight, Supervisor, Nuclear Licensing, by phone at 803-941-9828 or via email at justin.bouknight@scana.com.

This letter contains no regulatory commitments.

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

Executed on this 11th day of June, 2015.

Sincerely,



April R. Rice
Manager, Nuclear Licensing
New Nuclear Deployment

DK/ARR/dk

Enclosure 1: Virgil C. Summer Nuclear Station Units 2&3 – Response to Request for Additional Information Letter No. 3 (eRAIs 7463 and 7469) Regarding Mitigation Strategies for Beyond Design Basis External Events

cc: Denise McGovern
Ruth Reyes
Chandu Patel
Tom Fredette
Patrick Donnelly
Victor McCree
Jim Reece
Stephen A. Byrne
Jeffrey B. Archie
Ronald A. Jones
Alvis J. Bynum
Kathryn M. Sutton
April Rice
Justin Bouknight
Bryan Barwick
Dean Kersey
Margaret Felkel
Cynthia Lanier
Kristin Seibert
Neil Haggerty
Joel Hjelseth
Pat Young
Michael Frankle
AJ Marciano
Sean Burk
Brian McIntyre
Carl D. Churchman
Rick Easterling
Joseph Cole
Chuck Baucom
Lisa Alberghini
Curt Castell
Ken Hollenbach
Susan E. Jenkins
William M. Cherry
Rhonda O'Banion
VCSummer2&3ProjectMail@cbi.com

South Carolina Electric & Gas Company

Virgil C. Summer Nuclear Station Units 2&3

NND-15-0205

Response to

NRC Request for Additional Information

Letter No. 3 (eRAIs 7463 and 7469)

Regarding Mitigation Strategies

for Beyond Design Basis External Events

NRC RAI 03-1:

Following-up to Southern Nuclear Operating Company's (SNC's) response to RAI 02-9, dated June 19, 2014, in which SNC defined the ultimate water source as the Savannah River, based on NRC and industry concerns for potential debris in fluid systems at nuclear power plants, the NRC staff requests that the SNC address its plans to satisfy item 1.a.ix in Section 11.2 of NEI 12-06 as follows:

Potential clogging of strainers, pumps, valves or hoses from debris or ice when using rivers, lakes, ocean or cooling tower basins as a water supply.

The response should not be limited to the FLEX equipment, but should consider the entire flow path credited as part of the mitigating strategy to maintain or restore core, containment, and spent fuel pool cooling.

SCE&G Response to RAI 03-1:

NEI 12-06 states that potential clogging by debris is to be accounted for in design flow requirements. The SCE&G strategy to address potential intake clogging by debris from the Broad River is to minimize the clogging by using the associated intake strainer/screen as well as provide flow margin. In both the primary and alternate strategies, flow margin will allow degraded flow created by clogging of the strainer/screen to still provide adequate flow for some period of time. When flow drops below the minimum required, the paragraphs below describe how stopping the portable pump(s) flow to allow strainer/screen cleaning is accommodated for each strategy.

For the primary strategy using the PCS Ancillary Water Storage Tank and pumps, the river pump flow margin and the flow required by the passive containment cooling system (PCS) and spent fuel pool (SFP), the Passive Containment Cooling Ancillary Water Storage Tank would maintain a level sufficient to provide significant margin such that the flow from the river could be stopped for a period of time. When the flow is stopped, the strainer/screen located on the river inlet could be cleaned. This evolution could be done without losing flow to the PCS or SFP using the stored volume of water in the Ancillary Water Storage Tank.

For the alternate strategy supplying flow directly from the river, when the flow is stopped to clean the strainer/screen located on the river inlet, additional time margin exists in that loss of PCS cooling will result in a slow heat up of the containment. The same is provided in the SFP assuming that the water level is increased above the minimum level and a slow decrease in level will occur until the flow is restored.

The same scenarios apply to ice in freezing conditions considering continuous flow in the lines. The risk of ice clogging the strainer/screen will be minimal since it will be below the surface of the water.

NRC RAI 03-2:

During a telephone conference on July 3, 2014, with the NRC staff, SNC indicated its

plan to prepare plant-specific documentation and controls for the implementation of the AP1000 FLEX Plan similar to Vogtle Units 1 and 2, rather than preparing a revision to its FSAR to address the plant-specific FLEX plan. The NRC staff requests that SNC specify when its plant-specific documentation and controls for the implementation of the AP1000 FLEX Plan will be available for NRC review. The NRC staff also requests that SNC address its plans regarding an audit of the Regional Response Center to review maintenance activities and implementation of EPRI Technical Report 3002000623.

SCE&G Response to RAI 03-2:

When compliance with VCSNS Units 2 & 3 License Condition 2.D (13) is achieved and reported to the NRC, the licensee will submit a Final Integrated Plan (FIP) for those units. This FIP will provide the implemented strategy for achieving the requirements of this license condition. In accordance with NEI 12-06, Rev 1, the FIP will be maintained by the licensee and proposed modifications will be processed in accordance with station procedures to determine if prior NRC approval is required. If the licensee determines that prior NRC approval is required, the proposed modifications will be submitted to the NRC for approval prior to implementation.

It is not anticipated that the strategy which will be provided in the FIP for VCSNS units 2 & 3 will differ from what was provided in the Overall Integrated Plan submitted to the NRC in Reference 1.

Regarding the plan to audit the National SAFER Response Centers (formerly known as the Regional Response Centers), the Nuclear Energy Institute (NEI) submitted a White Paper in September 2014 [ML14259A222] requesting endorsement by the NRC. The White Paper discussed maintenance of the equipment, the internal and utility audits of Pooled Equipment Inventory Company (PEICo), as well as the expectations that PEICo will be audited by the NRC.

The SAFER program reviewed in these audits includes the maintenance activities performed at the National SAFER Response Centers. In the NRC response to the NEI White Paper, [ML14265A107], the Staff concluded that Licensees "...can reference the SAFER program and implement their SAFER response plans to meet the Phase 3 requirements of Order EA-12-049." VCSNS Units 2&3 will reference this program to meet the phase 3 requirements of License Condition 2.D(13), which are the same as those identified in Order EA-12-049.