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52-026

ND-09-0886

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application  
Loss of Large Areas of the Plant due to Explosions or Fire – Mitigative Strategies  
Description and Plans

Reference: Letter from Marilyn Kray (NuStart Energy Development) to NRC  
Document Control Desk, "NuStart COL Project – NRC Project No. 740  
Transition of AP1000 Reference Plant COL Application," dated April 28,  
2009

Ladies and Gentlemen:

This letter identifies changes that will be made to a future revision of the Vogtle Electric Generating Plant (VEGP) Units 3 and 4 combined license application (COLA) to address Nuclear Regulatory Commission (NRC) requirements in 10 CFR 52.80(d). These requirements are related to reporting requirements associated with guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with the loss of large areas of the plant due to explosions or fire.

**Attachment A to the enclosure to this letter provides the VEGP 10 CFR 52.80(d) Mitigative Strategies Description and Plans, which contains Security-Related Information, and accordingly is requested to be withheld from public disclosure under 10 CFR 2.390(d).**

Pursuant to the referenced letter from NuStart Energy Development, dated April 28, 2009, the AP1000 reference COLA (R-COLA) is in the process of transitioning from Bellefonte Units 3 and 4 to Vogtle Units 3 and 4. Because this submittal is intended to address an anticipated open item associated with security reviews, it should be treated by the NRC Staff as the "R-COLA submittal" for this document. (Other AP1000 COLAs are expected to make similar submittals in the future.)

If you have any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061.

DO92  
NRO

Mr. J. A. (Buzz) Miller states he is an Executive Vice President of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY



Joseph A. (Buzz) Miller

Sworn to and subscribed before me this 29<sup>th</sup> day of May, 2009

Notary Public: Gail A. Hicks  
Gail A. Hicks

My commission expires: July 5, 2010

DHJ/BJS/dmw

Enclosure: 10 CFR 52.80(d) – Loss of Large Areas of the Plant Mitigative Strategies Description and Plans

cc: Southern Nuclear Operating Company

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**Southern Nuclear Operating Company**

**ND-09- 0886**

**Enclosure 1**

**10 CFR 52.80(d)**

**Loss of Large Areas of the Plant  
Mitigation Strategies Description and Plans**

## **NRC Review of Combined License Application**

### **DISCUSSION OF VEGP 3 & 4 COL APPLICATION CHANGES TO ADDRESS REGULATIONS IN 10 CFR 52.80(d) RELATED TO LOSS OF LARGE AREAS OF THE PLANT DUE TO EXPLOSIONS OR FIRE:**

On March 27, 2009, the NRC published the Final Rule related to Power Reactor Security Requirements (RIN 3150-AG63) in the Federal Register (73 *FR* 13926). 10 CFR 52.80(d) of the Final Rule requires a combined license (COL) application to include a description and plans for implementation of the guidance and strategies intended to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with the loss of large areas of the plant due to explosions or fire as required by 10 CFR 50.54(hh)(2). This enclosure provides changes to the Vogtle Electric Generating Plant (VEGP) Units 3 and 4 combined license application (COLA) related to the loss of large areas of the plant due to explosions or fire, in response to the new requirements discussed above. This information will be included in a future revision to the VEGP COLA.

The Nuclear Energy Institute (NEI) has been working with the industry to adapt NEI 06-12, the guidance document used by the operating reactor fleet for addressing provision B.5.b of the NRC's February 25, 2002, Interim Compensatory Measures Order, to facilitate its use in developing mitigating strategies for new reactors. By letter dated May 1, 2009 (Reference 1), NEI provided NEI 06-12, proposed Revision 3, Draft A, to the staff for review. In addition to providing guidance on the development and assessment of mitigative strategies as required by 10 CFR 50.54(hh)(2), the draft NEI document also includes a template that may be used for the development of a Mitigative Strategies Description and Plans to address the requirements of § 52.80(d).

Southern Nuclear Operating Company (SNC) developed the attached site-specific Mitigative Strategies Description and Plans based on the template that was provided as Attachment 2 to NEI's May 1, 2009, letter. During the development of this site-specific document, minor changes were identified that would enhance the content of the common text in the template. These enhancements, which are expected to be provided to the staff as Draft B of the template, have been incorporated into this site-specific document.

Pursuant to the new requirements in 10 CFR 52.80(d), Attachment A to this enclosure provides the Vogtle Electric Generating Plant Mitigative Strategies Description and Plans. **The site-specific document in Attachment A contains Security-Related Information, and accordingly should be withheld from public disclosure under 10 CFR 2.390(d).**

Attachment B contains a redacted version of the Mitigative Strategies Description and Plans, which consists of the cover sheet only. Attachment C contains a variance listing of the areas where the Vogtle document varies from the NEI 06-12 template (proposed Revision 3, Draft A). SNC will incorporate the full, non-redacted version of the Mitigative Strategies Description and Plans document, including any applicable changes identified in response to NRC requests for additional information or other change drivers, in a future revision of COLA Part 9, Withheld Information. The redacted version of this Mitigative Strategies Description and Plans document will be incorporated into a future revision to COLA Part 11, Enclosures. The Loss of Large Areas mitigative strategies, including implementation of operational and programmatic aspects of responding to loss of large area events, will be implemented prior to initial fuel load.

Reference:

1. Letter from Douglas J. Walters, NEI, to Thomas A. Bergman, NRC, "Revision to NEI 06-12, *B.5.b Phase 2 and 3 Submittal Guideline*, Revision 2, December 2006," dated May 1, 2009.

The attached Mitigative Strategies Description and Plans document includes industry generic information, STANDARD technology-specific information, and SITE-SPECIFIC information, in accordance with the guidance provided in the draft NEI template. STANDARD text will generally be preceded with the phrase, "For the AP1000 ..." and SITE-SPECIFIC text will be preceded by, "For VEGP 3 & 4 ..." to facilitate the staff's review of this document and the S-COLA documents to follow. Additionally, in the Mitigative Strategies Table, industry generic strategies are preceded by the phrase, "For new plants, ..." This approach conforms with the use of bracketed text in the Mitigative Strategies Description and Plans template that is attached to NEI 06-12, Revision 3. SNC plans to provide a color-coded reviewer's aid in a separate submittal to facilitate the staff's review by further differentiating between generic, standard, and site-specific text.

**ASSOCIATED VEGP COL APPLICATION REVISIONS:**

1. Change COLA Part 9, Withheld Information, to include the new Mitigative Strategies Description and Plans (as provided in Attachment A), which contains security-related information, and therefore, should be withheld, in accordance with 10 CFR 2.390(d).
2. Change COLA Part 11, Enclosures, by including the new Mitigative Strategies Description and Plans (as provided in Attachment B). Note: The actual document should be withheld from disclosure in accordance with 10 CFR 2.390(d), because it contains security-related information. Consequently, the version of this Mitigative Strategies Description and Plans in Part 11 is redacted, and the full document is provided in COLA Part 9, Withheld Information.

**ASSOCIATED ATTACHMENTS/ENCLOSURES:**

- |              |   |
|--------------|---|
| Attachment A | Vogtle Electric Generating Plant, Units 3 and 4; Loss of Large Areas of the Plant due to Explosions or Fire; Mitigative Strategies Description and Plans; [Required by 10 CFR 52.80(d)] (Non-Public Version) (29 pages, including cover page)       |
| Attachment B | Vogtle Electric Generating Plant, Units 3 and 4; Loss of Large Areas of the Plant due to Explosions or Fire; Mitigative Strategies Description and Plans; [Required by 10 CFR 52.80(d)] (Public Version - Redacted) (3 pages, including cover page) |
| Attachment C | Variances from Draft B of NEI 06-12 Mitigative Strategies Description and Plans Template (2 pages, including cover page)  |

**NOTE: Attachment A contains Sensitive Unclassified NonSafeguards Information (SUNSI) - Withhold Under 10 CFR 2.390(d).**

# **ATTACHMENT B**

## **VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4**

### **LOSS OF LARGE AREAS OF THE PLANT DUE TO EXPLOSIONS OR FIRE**

#### **MITIGATIVE STRATEGIES DESCRIPTION AND PLANS [REQUIRED BY 10 CFR 52.80(d)]**

**(PUBLIC VERSION - REDACTED)**

**(3 pages, including this cover)**



**SOUTHERN NUCLEAR OPERATING  
COMPANY**

**VOGTLE ELECTRIC GENERATING PLANT  
UNITS 3 & 4**

**LOSS OF LARGE AREAS OF THE PLANT  
DUE TO EXPLOSIONS OR FIRE**

**Mitigative Strategies Description and Plans**

**Required by 10 CFR 52.80(d)**

**Revision 0 – May 29, 2009**

**Security-Related Information - Withheld Under 10 CFR 2.390(d)**

**Security-Related Information - Withheld Under 10 CFR 2.390(d)**  
**(See Part 9 of this COL Application)**

## **ATTACHMENT C**

### **Variances from Draft B of NEI 06-12, Mitigative Strategies Description and Plans Template (2 pages, including this cover)**

## ATTACHMENT C

### Variances from Draft B of NEI 06-12 Mitigative Strategies Description and Plans Template

The following list identifies variances that were taken from the generic text in the proposed Draft B of the Mitigative Strategies Description template. Each of these variances is also expected to be taken in the Mitigative Strategies Descriptions for the other AP1000 subsequent combined license applications (S-COLAs).

1. Wherever the bracketed "site" is standard for all AP1000 sites, the words "the AP1000" have been entered instead of the site name (VEGP).
2. In Section 5.1.1, the generic text has been modified to provide the correct description of the AP1000 yard main loop header system, including the use of post indicating valves and redundant flow paths to each building.
3. In the first sentence of Section 5.1.2, the generic text has been modified slightly to allow the correct description of the AP1000 fire pump house and the location of the fire pumps.
4. In Section 6.1, the first sentence has been modified to state that the normal makeup to the SFP is the DWS. Also the first part of the sentence that begins "The alternative diverse makeup..." has been altered to more accurately describe the alternate makeup sources for the AP1000.
5. In the Mitigative Strategies Table, each strategy that is standard for the AP1000 begins with "For the AP1000,..." or "The AP1000..."