

Brian H. Whitley  
Director  
Regulatory Affairs

Southern Nuclear  
Operating Company, Inc.  
42 Inverness Center Parkway  
Post Office Box 1295  
Birmingham, AL 35242

Tel 205.992.7079  
Fax 205.992.5296



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

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Units 3 and 4  
Supplement to Request for License Amendment:  
Response to Request for Additional Information  
Fire Area Boundaries (LAR-13-008S)

Ladies and Gentlemen:

In accordance with the provisions of 10 CFR 50.90, by letter dated April 25, 2013, Southern Nuclear Operating Company (SNC), the licensee for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, requested an amendment to Combined License (COL) Numbers NPF-91 and NPF-92, for VEGP Units 3 and 4, respectively.

SNC requested the amendment, which proposed to depart from approved AP1000 Design Control Document (DCD) Tier 2 and Tier 2\* information as incorporated into the Updated Final Safety Analysis Report (UFSAR) to revise information related to fire area boundaries. The Nuclear Regulatory Commission (NRC) staff issued Request for Additional Information (RAI) No. 1, also referred to as electronic RAI (eRAI) 7144, associated with License Amendment Request (LAR) 13-008 via electronic mail dated October 23, 2013 [ADAMS Accession No. ML13297A235]. The RAI and responses to the individual items are provided in Enclosure 4 of this LAR. Enclosures 1, 2, and 3 were provided with the original submittal of the LAR.

In a public meeting in Rockville, Maryland, on May 23, 2013, representatives from SNC and Westinghouse met with the NRC staff to discuss the licensee's process for performing reviews of plant-specific departures from the AP1000 DCD and the associated LARs. The response to this RAI discusses similar information and is applicable generically to the review process for other plant-specific departures from the AP1000 DCD for VEGP Units 3 and 4.

The supplemental information provided in this letter does not impact the scope of the original LAR or conclusions of the technical evaluation, regulatory evaluation (including the significant hazards consideration determination), or environmental considerations of the original LAR.

This letter contains no regulatory commitments.

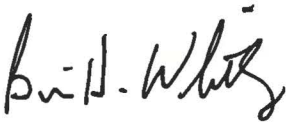
In accordance with 10 CFR 50.91, SNC is notifying the State of Georgia of this LAR RAI response by transmitting a copy of this letter and enclosures to the designated State Official.

Should you have any questions, please contact Mr. Brian Meadors at (205) 992-7331.

Mr. Brian H. Whitley states that he is the Regulatory Affairs Director 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



Brian H. Whitley

BHW/NH/kms

Sworn to and subscribed before me this 21<sup>st</sup> day of November, 2013

Notary Public: Kristin Marie Seibert

My commission expires: August 16, 2016



Enclosure: 4. Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Response to NRC Staff's Questions Related to License Amendment Request (LAR) 13-008 (LAR-13-008S)

cc:

Southern Nuclear Operating Company/ Georgia Power Company

Mr. S. E. Kuczynski (w/o enclosure)  
Mr. J. A. Miller  
Mr. D. A. Bost (w/o enclosure)  
Mr. B. L. Ivey  
Mr. M. D. Rauckhorst (w/o enclosure)  
Mr. J. T. Gasser (w/o enclosure)  
Mr. D. H. Jones (w/o enclosure)  
Mr. J. R. Johnson (w/o enclosure)  
Mr. T. E. Tynan  
Mr. D. M. Lloyd  
Mr. B.H. Whitley  
Mr. C. R. Pierce  
Mr. D. L. Fulton  
Mr. C. H. Mahan  
Mr. S. Thomason  
Ms. A. G. Aughtman  
Mr. M. C. Medlock  
Mr. W. A. Sparkman  
Mr. C. B. Meadors  
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Nuclear Regulatory Commission

Mr. V. M. McCree (w/o enclosure)  
Mr. F. M. Akstulewicz (w/o enclosure)  
Mr. L. Burkhart (w/o enclosure)  
Mr. D. H. Jaffe  
Mr. R. G. Joshi  
Ms. D. L. McGovern  
Mr. B. M. Bovol  
Ms. M. A. Sutton  
Mr. M. E. Ernestes  
Mr. G. Khouri  
Mr. L. M. Cain  
Mr. J. D. Fuller  
Mr. C. B. Abbott  
Mr. C. Huffman  
Mr. A. J. Minarik

State of Georgia

Mr. J. H. Turner

Oglethorpe Power Corporation

Mr. M. W. Price  
Mr. K. T. Haynes

Municipal Electric Authority of Georgia

Mr. J. E. Fuller  
Mr. S. M. Jackson

Dalton Utilities

Mr. D. Cope

CB&I

Mr. J. Simmons (w/o enclosure)  
Mr. G. Grant (w/o enclosure)  
Ms. K. Stoner (w/o enclosure)  
Mr. C. A. Castell

Westinghouse Electric Company, LLC

Mr. T. C. Geer (w/o enclosure)  
Mr. S. W. Gray (w/o enclosure)  
Mr. F. G. Gill  
Mr. P. A. Russ  
Mr. G. F. Couture  
Mr. M. Y. Shaqqo

Other

Mr. R. W. Prunty, Bechtel Power Corporation  
Ms. K. K. Patterson, Tetra Tech NUS, Inc.  
Dr. W. R. Jacobs, Jr., Ph.D., GDS Associates, Inc.  
Mr. S. Roetger, Georgia Public Service Commission  
Ms. S. W. Kernizan, Georgia Public Service Commission  
Mr. K. C. Greene, Troutman Sanders  
Mr. S. Blanton, Balch Bingham  
Ms. A. Rice, South Carolina Electric & Gas Company  
Mr. D. Kersey, South Carolina Electric & Gas Company  
Mr. B. Kitchen, Duke Energy  
Mr. S. Franzone, Florida Power & Light

**Southern Nuclear Operating Company**

**ND-13-2399**

**Enclosure 4**

**(Note that Enclosures 1 through 3 were provided with the original LAR submittal.)**

**Vogtle Electric Generating Plant (VEGP) Units 3 and 4**

**Response to NRC Staff's Questions  
Related to  
License Amendment Request (LAR) 13-008  
(LAR-13-008S)**

**eRAI Tracking No. 7144**

**Question 1**

In the Vogtle Electric Generating Plant (VEGP) License Amendment Request (LAR) regarding Fire Area Boundaries (LAR-13-008), the licensee indicated that a review of the VEGP Physical Security Plan was completed. The licensee's review determined that the proposed changes do not adversely affect the Physical Security Plan.

Explain why the LAR-13-008 does not address the Safety/Security interface requirements of 10 CFR 73.58 as described in FSAR Subsection 13.5.1, "Administrative Procedures."

"A process for implementing the safety/Security interface requirements of 10 CFR 73.58"

Describe the process used at Vogtle Units 3 & 4 to evaluate each of the proposed changes in LAR-13-008 to ensure that potential adverse effects from implementation of changes to safety and security measures were considered and how they will be addressed prior to implementation.

The licensee's response should confirm that LAR-13-008 changes do not compete or conflict with the capability of the site physical protection program to provide high assurance of adequate protection and common defense and security.

Confirm that the changes described in LAR-13-008 do not impact ingress and egress routes (not just the routes in the vital area) such that security force response personnel and operations personnel are able to respond to plant events during contingency or emergency situations uninhibited and unobstructed.

Confirm that the normal security configuration of the exterior door for the new stairway did not change.

Describe Vogtle Units 3 & 4's change process for LAR's to ensure that effective communications between the operations (safety) and security staffs is maintained through-out the construction phase until both units meet operational requirements.

**Regulatory Reference:**

10 CFR 73.58(b) The licensee shall assess and manage the potential for adverse effects on safety and security, including the site emergency plan, before implementing changes to plant configurations, facility conditions, or security.

(c) The scope of changes to be assessed and managed must include planned and emergent activities (such as, but not limited to, physical modifications, procedural changes, changes to operator actions or security assignments, maintenance activities, system reconfiguration, access modification or restrictions, and changes to the security plan and its implementation).

(d) Where potential conflicts are identified, the licensee shall communicate them to appropriate licensee personnel and take compensatory and/or mitigative actions to maintain safety and security under applicable Commission regulations, requirements, and license conditions.

**SNC Response:**

UFSAR Subsection 13.5.1 describes the administrative procedures that will provide administrative control over activities that are important to safety for the operation of the facility. The list of administrative procedures in Subsection 13.5.1 includes a process for implementing the safety/security interface requirements of 10 CFR 73.58. The purpose of implementing the safety/security interface process is to establish and maintain an effective interface between safety and security at a facility to ensure that potential adverse effects from implementation of changes to safety and security measures are considered and addressed prior to implementation. In this regard, the safety/security interface process may be considered a work control process for licensees to assess and manage changes to safety and security activities to prevent or mitigate potential adverse effects that could negatively impact either plant safety or security.

However, because both Units 3 and 4 of the Vogtle Electric Generating Plant (VEGP) are currently in the early phases of construction and receipt of fuel on-site is not expected for several years, Southern Nuclear Operating Company (SNC) has not yet implemented the Physical Security Plan or the safety/security interface process. While the safety/security interface process is expected to be a valuable tool in the site work control process during plant operations, SNC does not consider this process to be appropriate for reviewing the various design changes and other departures from the AP1000 Design Control Document (DCD) that are currently in process for VEGP Units 3 and 4. Instead, SNC and the AP1000 reactor vendor, Westinghouse Electric Company (WEC), utilize a multi-stepped design and licensing change process that includes:

- Impact reviews of each design change proposal by the various program areas (e.g., security, operations, radiation protection, emergency plan),
- Licensing reviews and engineering reviews of each associated licensing change package that evaluate incorporation of the design changes into the licensing basis documents, and
- Additional focused program area reviews of design and licensing changes that are considered to have a potential impact on any VEGP Units 3 and 4 program areas.

This change process for departures from the Vogtle Units 3 and 4 licensing basis provides the necessary assurance that effective communications between the SNC program areas, including engineering, operations, emergency planning, and security, is maintained throughout the construction phase until both units meet operational requirements.

Following approval of licensing change packages, the changes are part of the VEGP Units 3 and 4 licensing basis. Because the VEGP Units 3 and 4 operational programs and implementing procedures (such as the Physical Security Implementing Procedures) are developed based on the VEGP Units 3 and 4 licensing basis documents, not the DCD, these program documents will include the effects of the approved licensing changes as they are incorporated into licensing basis documents. Therefore, the potential effects (both beneficial and adverse) from implementation of changes to the licensing basis documents will be considered during the development of the Physical Security Program implementing procedures, prior to implementation of this program.

ND-13-2399  
Enclosure 4  
Response to RAI Letter No. 01 Regarding LAR-13-008

Because the changes proposed by LAR-13-008, Fire Area Boundaries, affect the internal configuration of the turbine building, a security assessment of the changes was performed by a member of the SNC Nuclear Fleet Security organization knowledgeable of AP1000 design and protective strategy. The assessment concluded that the proposed changes would have no adverse impact on the Physical Security Plan, as discussed on Page 16 of Enclosure 1 of the April 25, 2013 LAR. Following NRC approval and implementation of the changes into the licensing basis, these changes will form part of the basis for the site physical protection program. The site physical security program, including the associated implementing procedures, are to be developed based on current licensing basis documents, and verified and confirmed to provide high assurance of adequate protection and common defense prior to receipt of fuel onsite.

Regarding potential impacts to ingress and egress routes resulting from the changes described in LAR-13-008, SNC confirms that these changes do not negatively impact the response of security force response personnel and/or operations personnel to plant events during a contingency or emergency situation. Furthermore, the security assessment of the changes requested by LAR-13-008 performed by SNC did not identify any additional security requirements for the exterior ground level door for the new stairway (S15) beyond those required by the AP1000 Standard Technical Report, APP-GW-GLR-066, for other exterior ground level doors from the turbine building to the yard area. Consequently, SNC confirms that the security configuration for the exterior door for the new stairway did not change.

No additional changes to the LAR-13-008 evaluations or licensing basis document markups are necessary in response to this question.



**Question 2:**

In the Vogtle Electric Generating Plant (VEGP), License Amendment Request (LAR) regarding Fire Area Boundaries (LAR-13-008), the licensee stated that a review of VEGP Physical Security Plan was completed regarding the changes identified in LAR-13-008. The licensee's review determined that the proposed changes do not adversely affect the Physical Security Plan.

Section 7, of the Safeguards Contingency Plan (SCP), describes a process for an Expert Panel to identify the necessary structures, systems and components to be protected. Was the expert panel as described in SCP Section 7, used during the review of the proposed changes described in LAR 13-008? If not, describe the expertise in security and key areas of plant design and operations of the panel members that was used during the review of the proposed changes described in LAR 13-008.

Confirm the that the panel's review included an evaluation of how the additional pathways within the turbine building, created by the new stairwell, as described in LAR 13-008, will not impact the armed responders located outside the vital areas, since these armed responders may be required to redeploy to other location to engage intruders.

**Regulatory Reference:**

10 CFR 73.55(b)(4), "the licensee shall analyze and identify site-specific conditions including target sets, that may affect the specific measures needed to implement the requirements of 10 CFR 73.55 and shall account for these conditions in the design of the physical protection program." Each applicant or licensee is responsible for analyzing and identifying site-specific conditions that affect how NRC requirements are implemented and to account for these site-specific conditions in the design and implementation of the onsite physical protection program.

**SNC Response:**

As indicated in UFSAR Table 13.4-201, Item 15, in accordance with 10 CFR 73.55(a)(4), SNC will implement the site Physical Security Program and Safeguards Contingency Program prior to allowing fuel onsite (protected area). Though the requirements of the Physical Security and Safeguards Contingency Plans do not, and cannot, yet apply to VEGP Units 3 and 4, the information pertaining to target set analysis and expert panel reviews is provided to facilitate the reviewers' understanding of a planned future activity, and should not be interpreted to imply that these processes are currently in use.

The current target sets used in the development of protective features and strategy for VEGP Units 3 and 4 were identified as part of a collaborative effort between SNC and WEC that included both individuals with expertise in the design and operation of the AP1000 and individuals with expertise in security system design and operation. This process was described in the WEC response to NRC Request for Additional Information (RAI) TR94-NSIR-27, Supplement 1, dated May 18, 2009, regarding the review of the WEC AP1000 Safeguards Assessment Report, APP-GW-GLR-066 (TR-94), which is identified as Reference 4 in Subsection 13.6.3 of the VEGP Units 3 and 4 UFSAR. [Note: The response to RAI-TR94-NSIR-27, Supplement 1 is Security-Related Information (SRI), and is withheld from public disclosure in accordance with 10 CFR 2.390(d).]

Proposed changes to the AP1000 structures, systems, and components (SSCs) such as the ones described in LAR-13-008 are reviewed for security-related impact as part of the design change process by individuals from both WEC and SNC that were either involved in the initial evaluations described above or hold equivalent organizational positions and have equivalent subject matter expertise.

With respect to the specific changes in LAR-13-008 associated with the added design feature of a new stairwell and relocation of another within the turbine building, security-focused reviews determined that there was no impact to armed responders located outside the vital areas for the following reasons:

- The armed responders are currently stationed within areas of the plant that will not require traverse along these stairwells in order to respond to the designated external response positions upon receipt of appropriate command and control notifications.
- The current protective strategy for VEGP Units 3 and 4 includes a defense-in-depth strategy designed to preclude the redeployment of armed responders responding to pre-determined strategic fighting positions, except under extreme extenuating circumstances.
- The stairwell modifications proposed in LAR-13-008 would not significantly impact timelines associated with site traverse to anticipated vital area intrusion points by armed responders upon receipt of appropriate command and control notifications.

Upon design finalization and prior to the implementation of security measures for VEGP Units 3 and 4, a comprehensive set of site-specific target sets are to be developed by SNC utilizing the fleet process for target set identification, development, and maintenance. This process utilizes an expert panel or target set analysis team (TSAT) comprised of subject matter experts in a variety of areas (e.g., Security, Operations, Engineering, Probability Risk Analysis, etc.) to identify the SSCs and operator actions that need to be protected as part of a target set.

Upon design finalization and concurrent with the implementation of security measures for VEGP Units 3 and 4, SNC will utilize both an engineering design review process and a safety/security interface process as required by 10 CFR 73.58 to evaluate the impact of the changes to site design features on the site physical protection program. These processes require that knowledgeable security personnel evaluate changes to plant design, plant operational and maintenance activities, and any other plant condition that could compete or conflict with the capability of the site physical protection program.

No additional changes to the LAR-13-008 evaluations or licensing basis document markups are necessary in response to this question.